SERVICE MANUAL

SANYO

VM-D1P

BF09

8mm CAMCORDER

PRODUCT CODE No.	
WEST GERMANY	126 004 03
EUROPE	126 004 04
PX	126 004 18
AUS	126 004 13
NEW-Z	126 004 17
M-EAST	126 004 14

SPECIFICATIONS

Video recording system	Rotating 3-head helical-scan FM, color under system
Audio recording system	Rotating head FM system (Monaural)
Video Signals	PAL color, CCIR standard system
Cassette Type	8mm video tape cassette
Tape speed	20.051 mm/sec.
Recording/ playback time	90 minutes (with P5-90 cassette)
Fast forward/ rewind time	Within approx. 4 minutes (P5-90 cassette)
Pickup elements	CCD solid-state type
Viewfinder	Electronic (0.7-inch type, black and white)
Lens	Electro-powered 6 x zoom lens f = 9 – 54 mm F1.6 Macro function (Min. focusing range = approx. 5 mm), Digital autofocus, Filter diameter = 49 mm
White balance adjustment	Automatic or two manual setting positions
Minimum subject illumination	9 Lux
Subject illumination range	9 Lux – 100,000 Lux
Recommended subject illumination	300 Lux and over
High-speed shutter	1/800 sec.
Power supply voltage	Battery pack insertion slot input 6V/8.5V
Power consumption	6.8W during camera recording
Operating position	Vertical
Operating condition	Temperature range 0°C – 40°C
Storage temperature range	–20°C–60°C
External dimensions	120(W) x 140(H) x 315(D) mm
Weight	Main unit: 1.27 kg (approx. 1.6 kg including battery and P5-15 tape)
Microphone	Electret condenser type (unidirectional)
8P RF adaptor	Video input: 1Vp-p, 75Ω unbalanced, negative sync Video output: 1Vp-p, 75Ω unbalanced, negative sync Audio input: –10 dBs, 47 kΩ and over Audio output: –8 dBs, 2.2 kΩ and below
Microphone jack	Mini jack, –68 dBs, for Low-impedance microphone
Earphone jack	Mini jack, for 8Ω earphone

A11700 ER-4P/G, EX, GPX, A, NZ, ME

REFERENCE No. WM-20985

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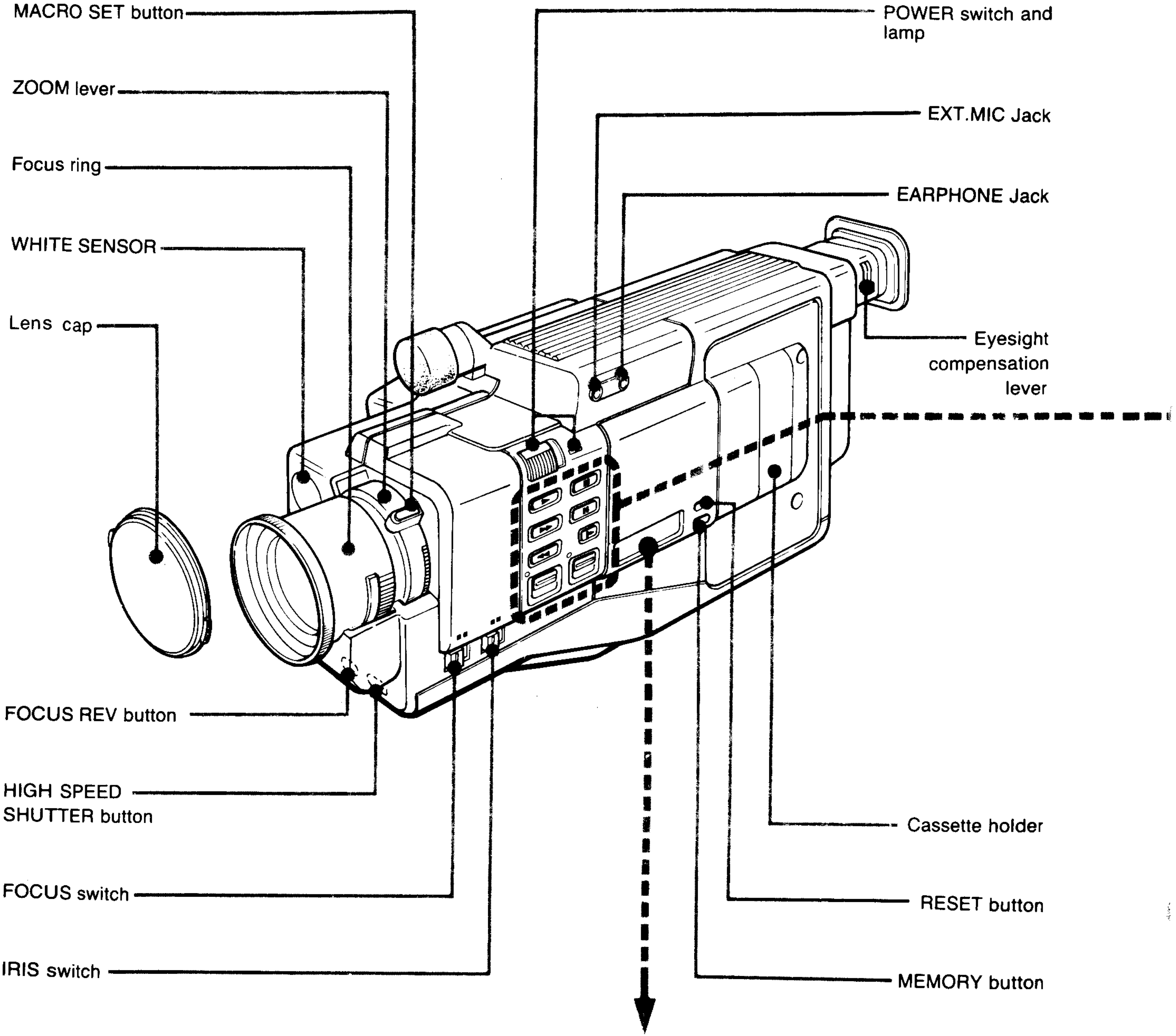
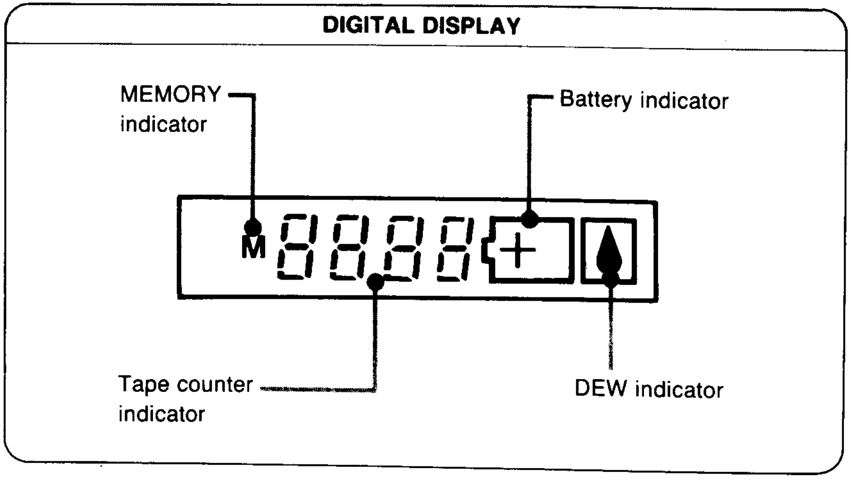
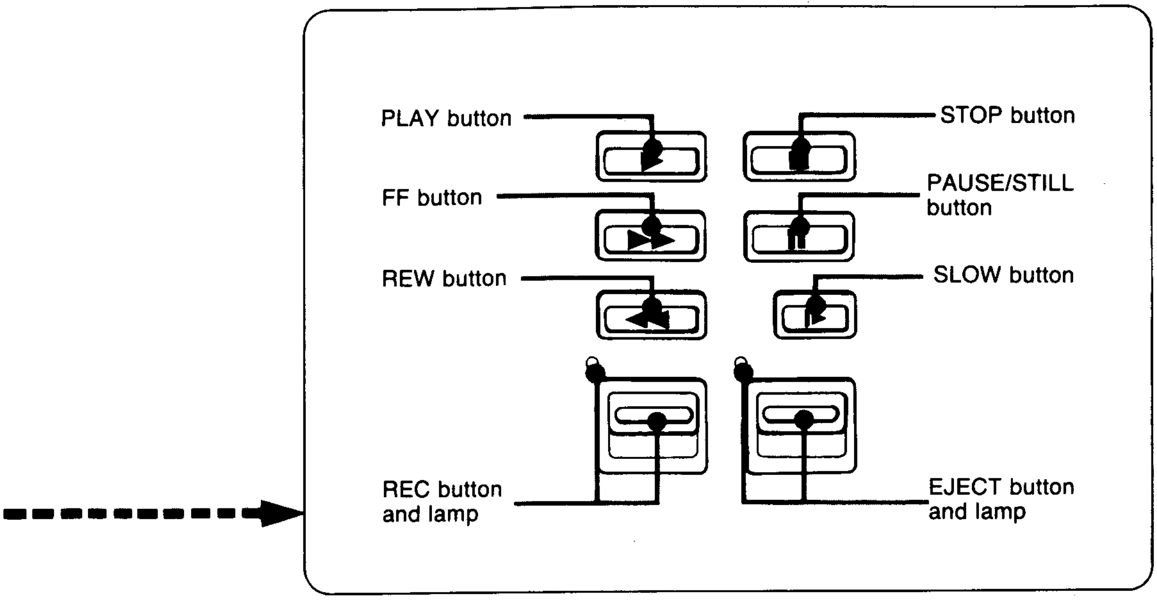
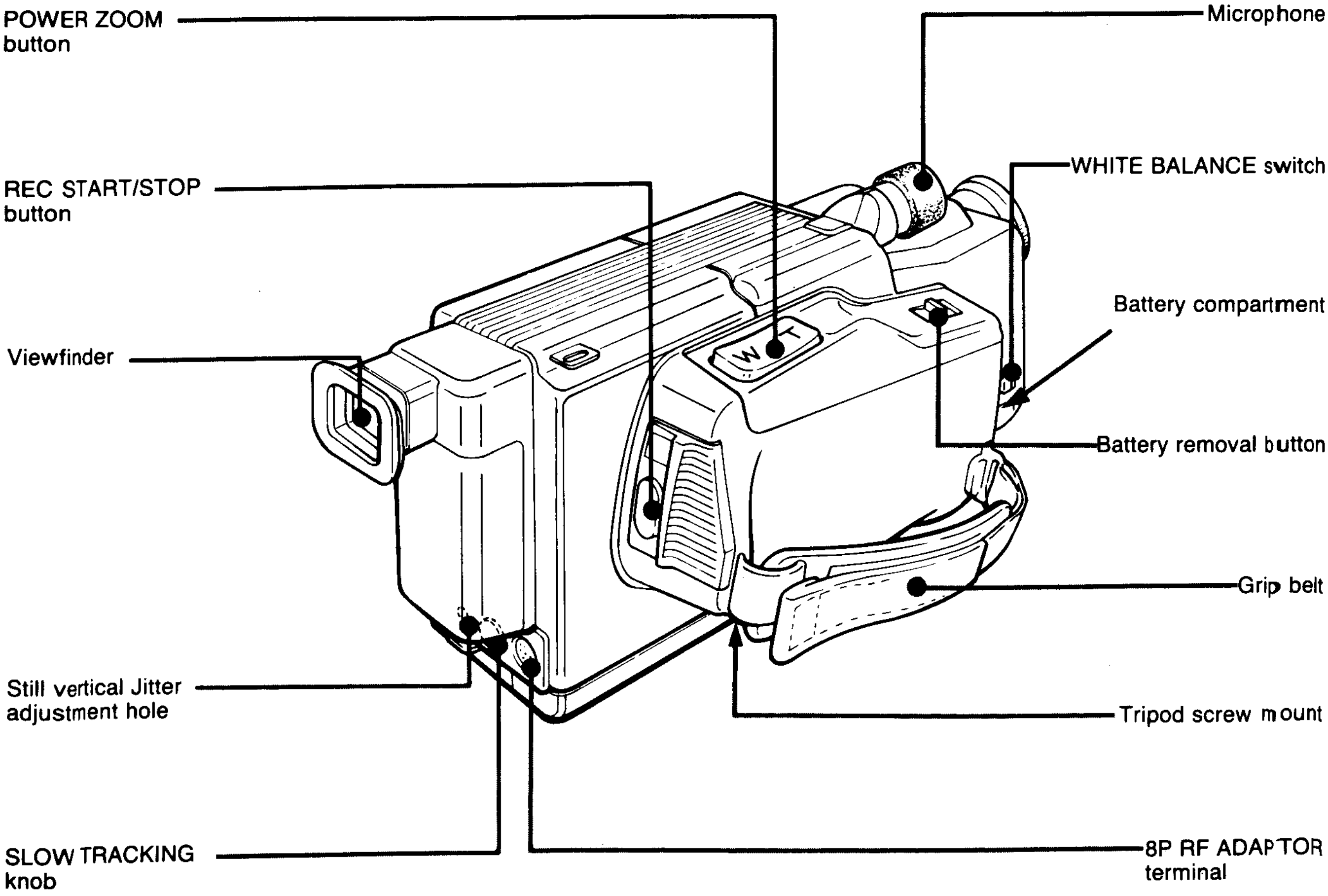
1. PARTS NAME


MACRO SET button
ZOOM lever
Focus ring
WHITE SENSOR
Lens cap
FOCUS REV button
HIGH SPEED SHUTTER button
FOCUS switch
IRIS switch
POWER switch and lamp
EXT.MIC Jack
EARPHONE Jack
Eyesight compensation lever
Cassette holder
RESET button
MEMORY button


DIGITAL DISPLAY
MEMORY indicator
Battery indicator
M
Tape counter indicator
DEW indicator

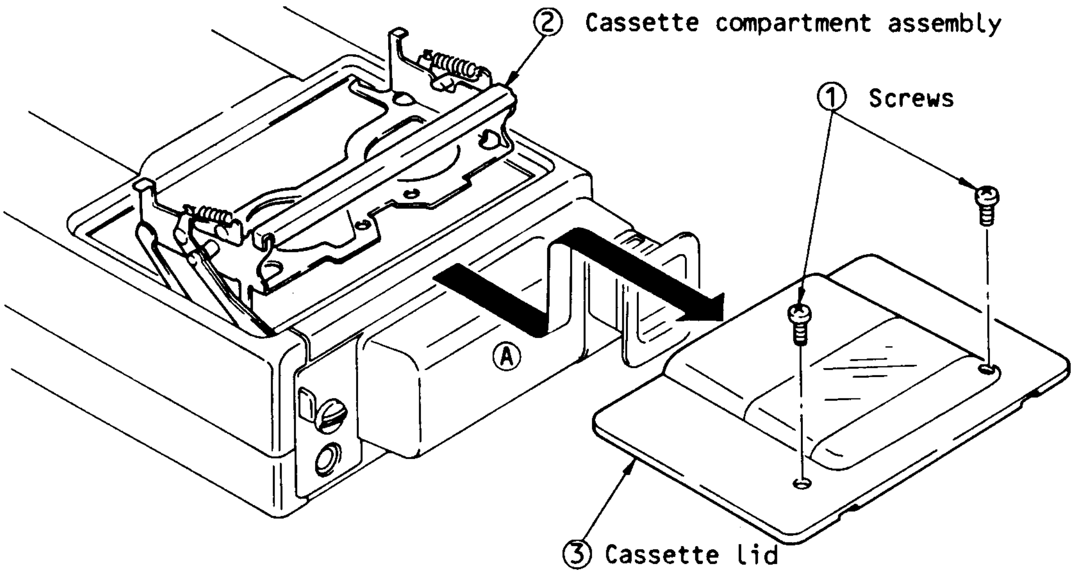

PLAY button
STOP button
FF button
PAUSE/STILL button
REW button
SLOW button
REC button and lamp
EJECT button and lamp


POWER ZOOM button
Microphone
REC START/STOP button
WHITE BALANCE switch
Battery compartment
Viewfinder
Battery removal button
Grip belt
Still vertical Jitter adjustment hole
Tripod screw mount
SLOW TRACKING knob
8P RF ADAPTOR terminal

2. DISASSEMBLY

2-1. REMOVAL OF THE CASSETTE LID

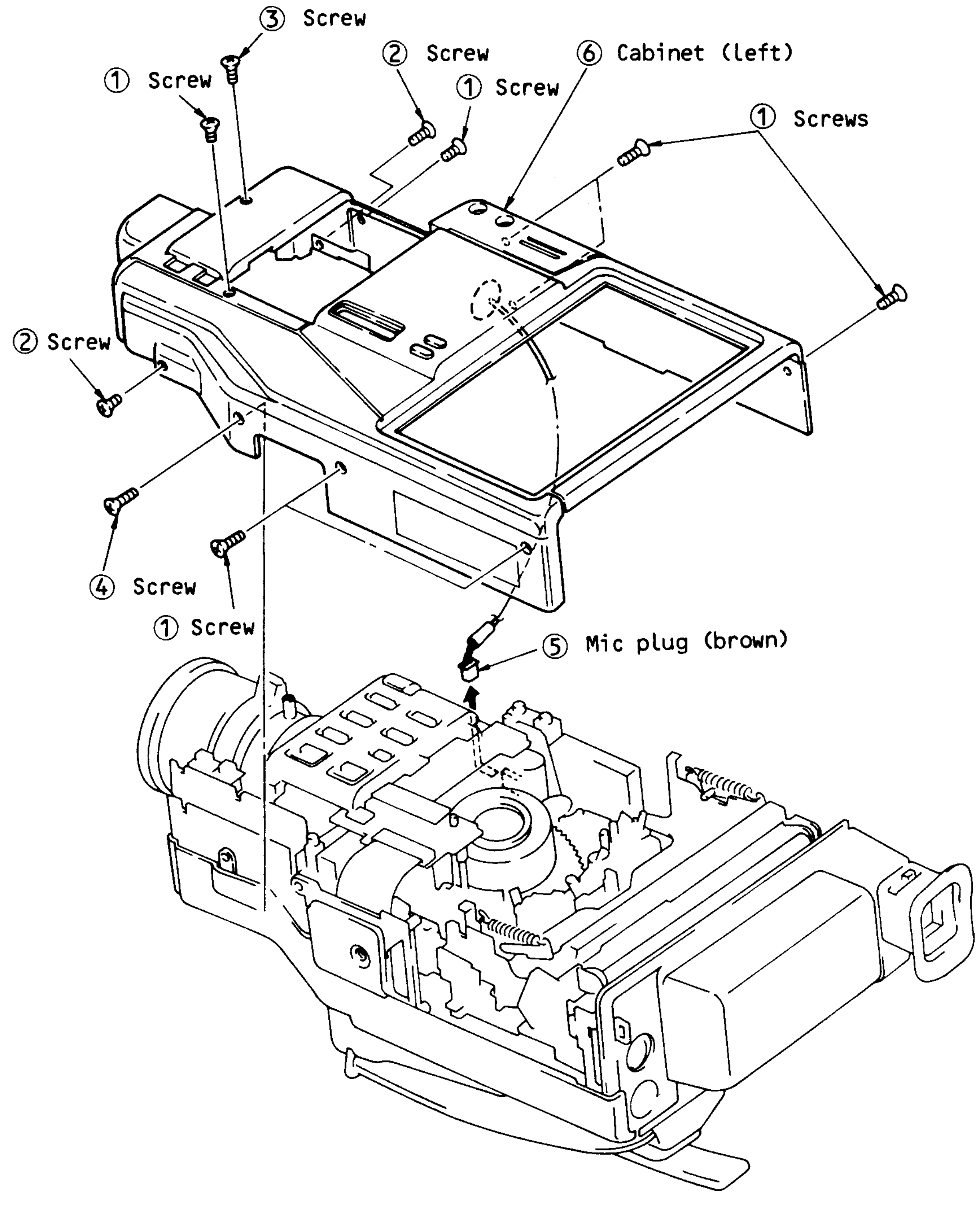
1) Remove the two screws ①.
2) Turn on the power and press the EJECT button down, lift the cassette compartment assembly ②.
3) Slide the cassette lid ③ in the direction Ⓐ shown by the arrow and remove it.


② Cassette compartment assembly
① Screws
Ⓐ
③ Cassette lid

2-2. REMOVAL OF THE CABINET (Left)

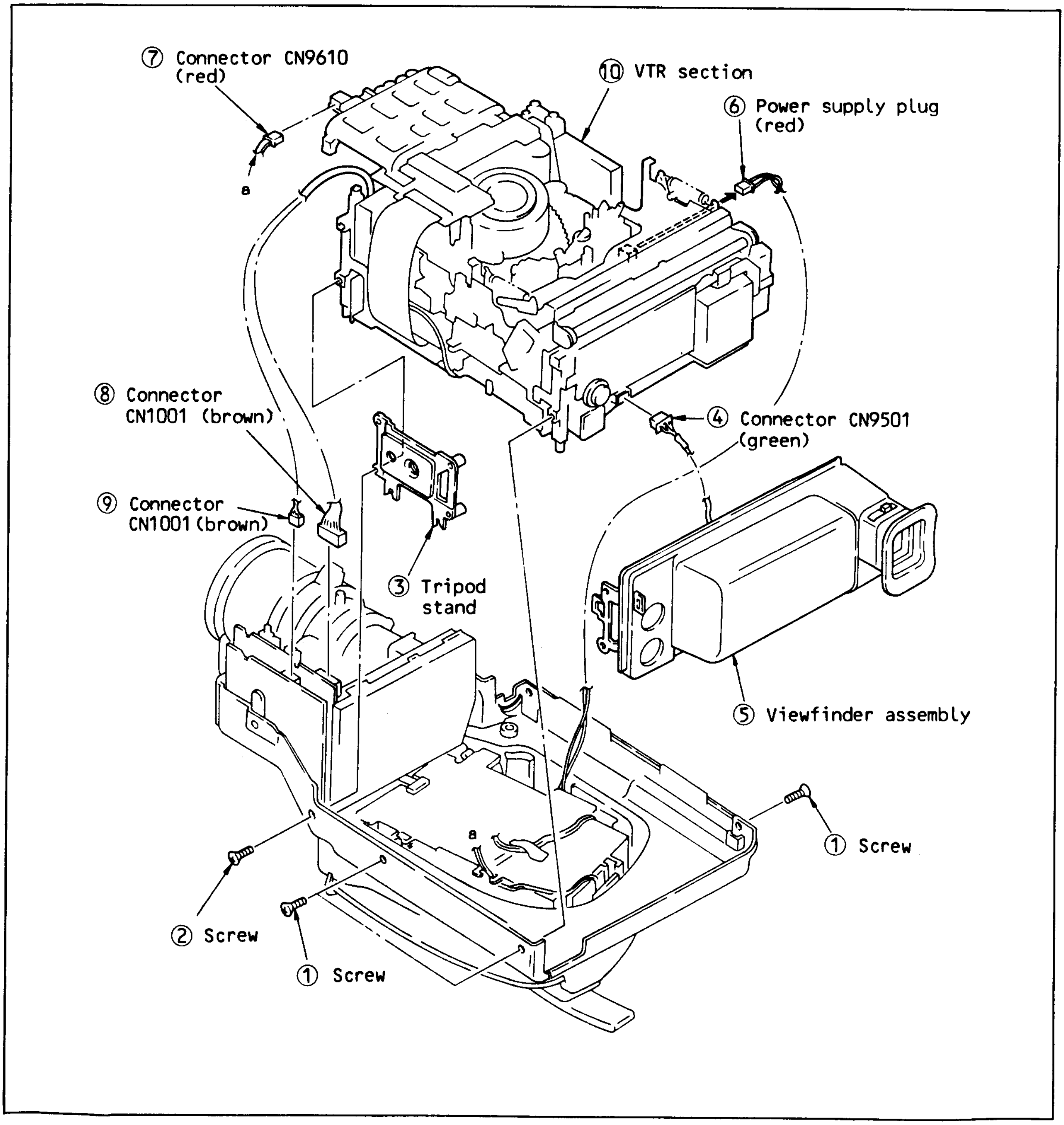
Note: Remove the cassette lid before removing the cabinet.

1) Remove the seven screws ①, screw ②, screw ③, and screw ④.
2) Remove the mic plug (brown) ⑤.
3) Remove the cabinet (left) ⑥.


③ Screw
② Screw
⑥ Cabinet (left)
① Screw
① Screw
① Screws
② Screw
④ Screw
① Screw
⑤ Mic plug (brown)

2-3. REMOVAL OF THE VIEWFINDER ASSEMBLY AND VTR SECTION

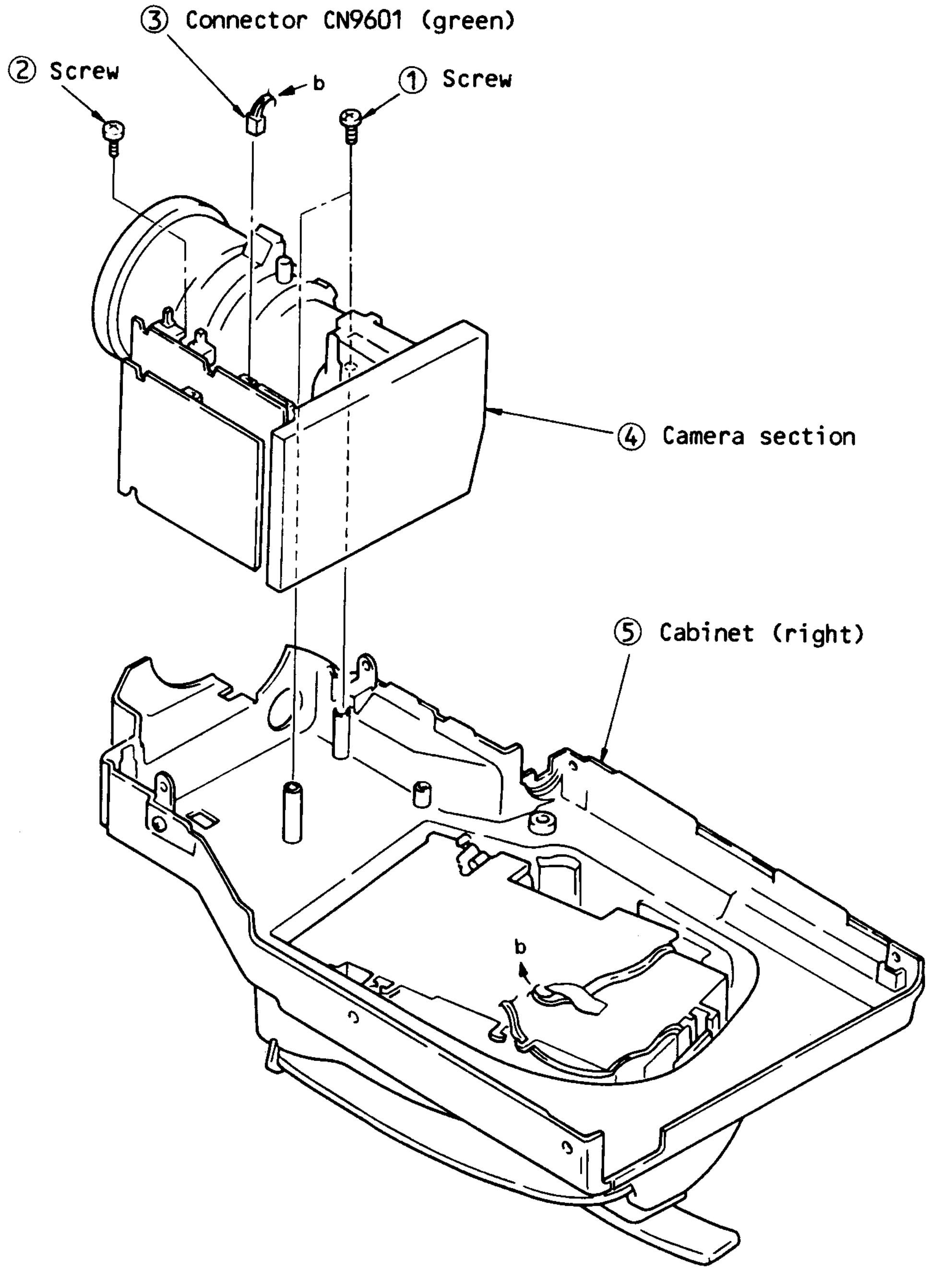
1) Remove the three screws ① and screw ②.
2) Remove the tripod stand ③.
3) Remove the connector CN9501 (green) ④ and the viewfinder assembly ⑤.
4) Remove the power supply plug (red) ⑥.
5) Remove the connector CN9610 (red) ⑦, CN1001 (brown) ⑧, CN1001 (brown) ⑨, and VTR section ⑩.



⑦ Connector CN9610 (red)
⑩ VTR section
⑥ Power supply plug (red)
a
⑧ Connector CN1001 (brown)
④ Connector CN9501 (green)
⑨ Connector CN1001 (brown)
③ Tripod stand
⑤ Viewfinder assembly
a
① Screw
② Screw
① Screw

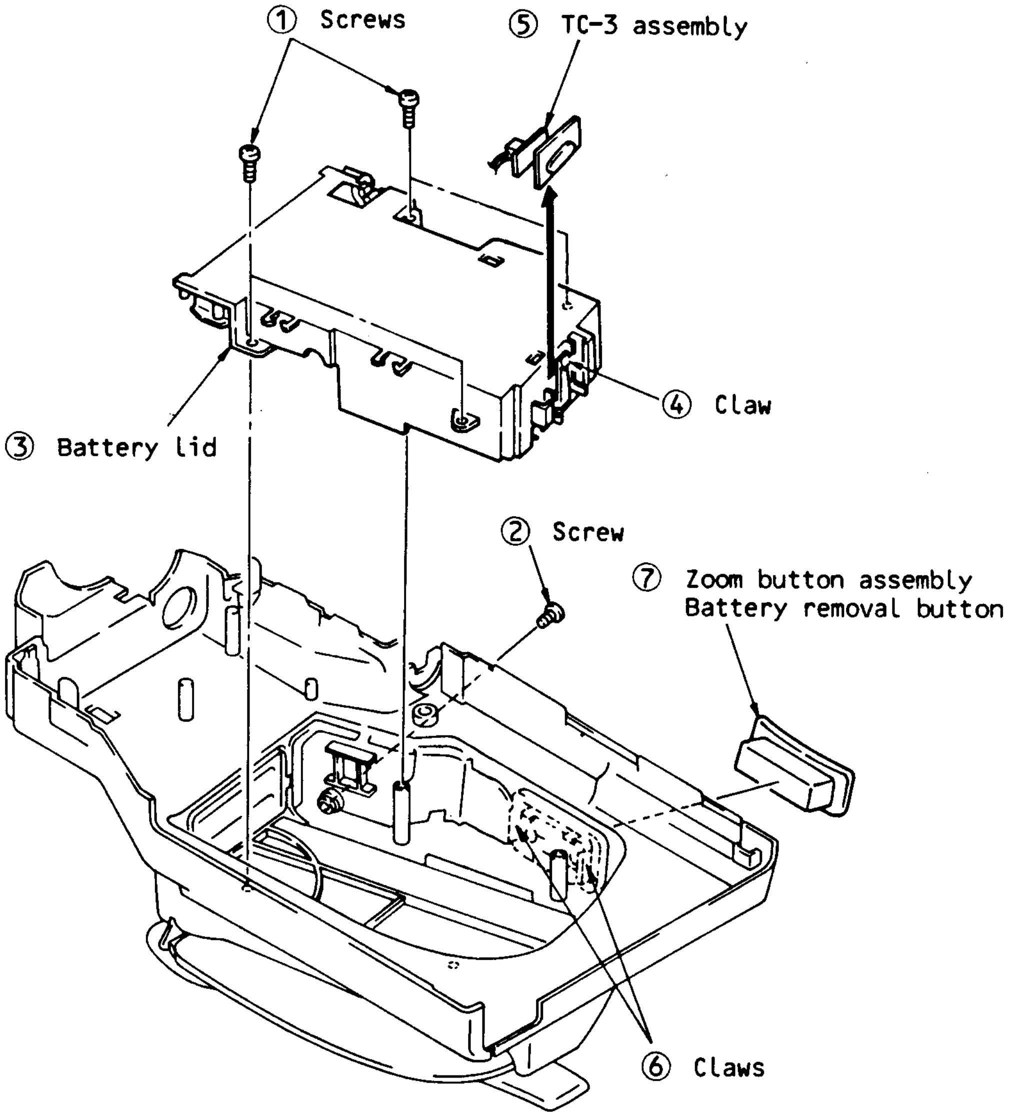
2-4. REMOVAL OF THE CAMERA SECTION AND CABINET (Right)

1) Remove the two screws ① and screw ②.
2) Remove the connector CN9601 (green) ③, camera section ④, and cabinet (right) ⑤.


③ Connector CN9601 (green)
② Screw
b
① Screw
④ Camera section
⑤ Cabinet (right)
b

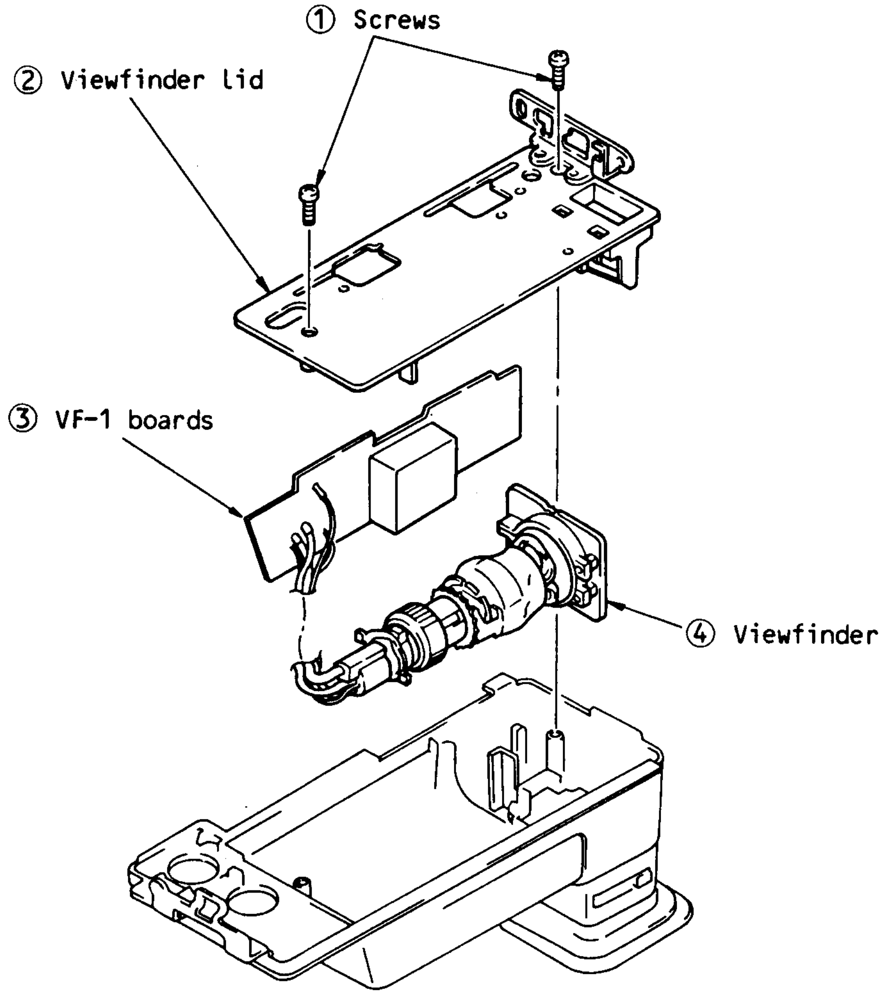
2-5. REMOVAL OF THE BATTERY LID

1) Remove the four screws ① and screw ②.
2) Remove the battery lid ③.
3) Remove the claw ④ and the TC-3 assembly ⑤.
4) Remove the claws ⑥ in two places and the zoom button assembly ⑦.


① Screws
⑤ TC-3 assembly
④ Claw
③ Battery lid
② Screw
⑦ Zoom button assembly
Battery removal button
⑥ Claws

2-6. REMOVAL OF THE VF-1 ASSEMBLY

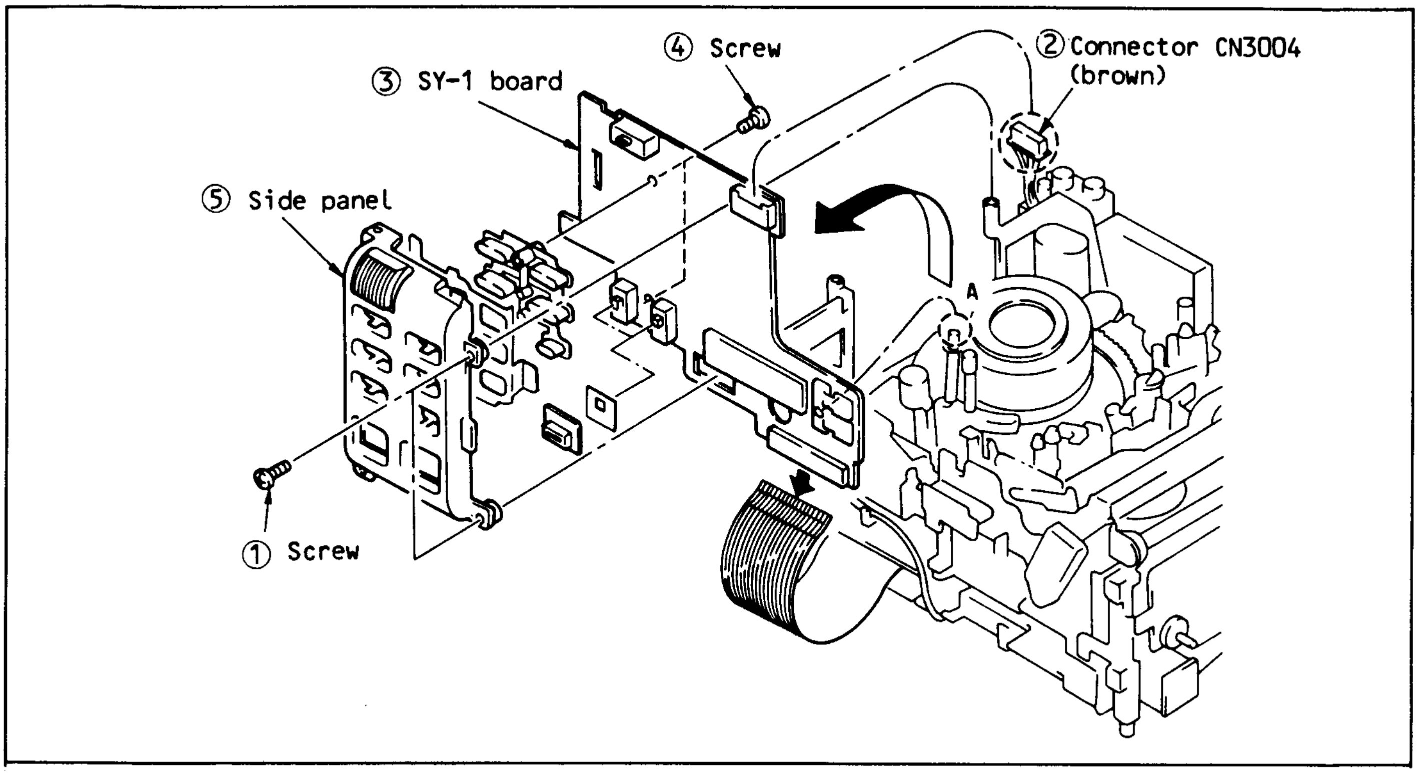
1) Remove the two screws ①.
2) Remove the viewfinder lid ②.
3) Remove the VF-1 board ③ and the viewfinder ④.


① Screws
② Viewfinder lid
③ VF-1 boards
④ Viewfinder

2-7. REMOVAL OF THE SY-1 BOARD

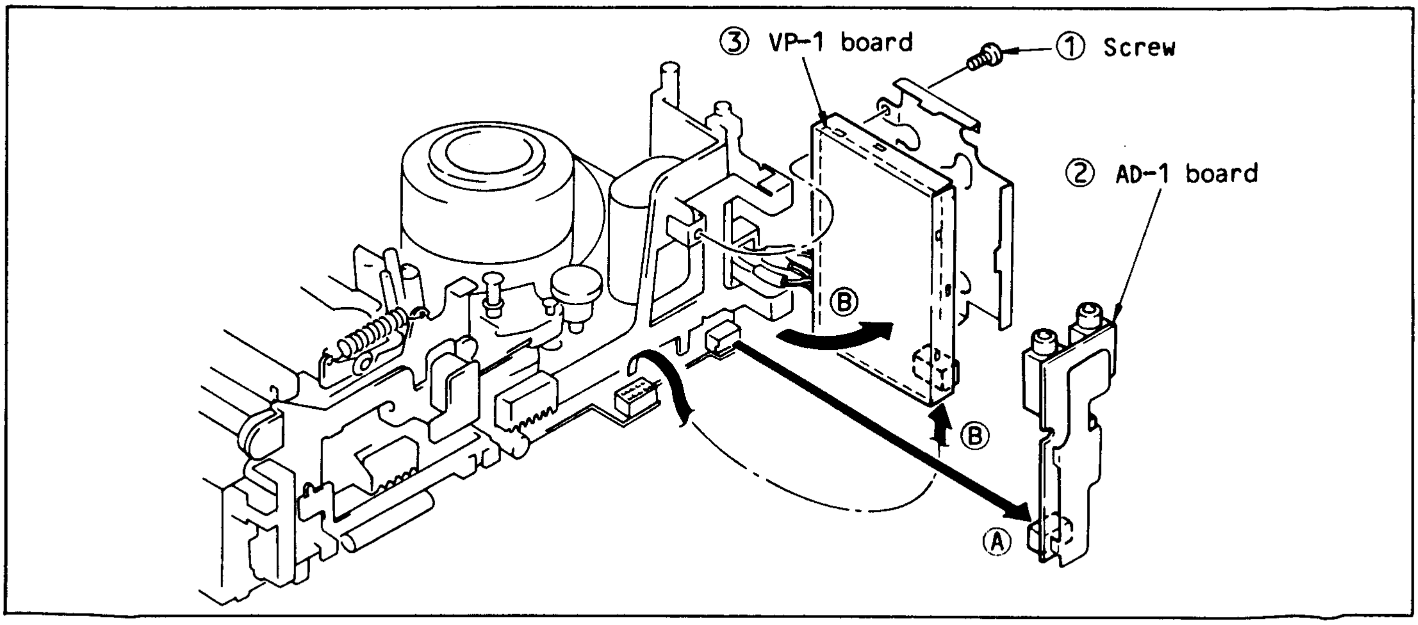
1) Remove the two screws ①.
2) Remove the connector CN3004 (brown) ②.
3) Remove the SY-1 board ③ in the direction of the arrow.
4) Remove the two screws ④ and the side panel ⑤.

Note: When attaching the SY-1 board, Ⓐ is inserted into the hole on the SY-1 board.


④ Screw
② Connector CN3004 (brown)
③ SY-1 board
⑤ Side panel
A
① Screw

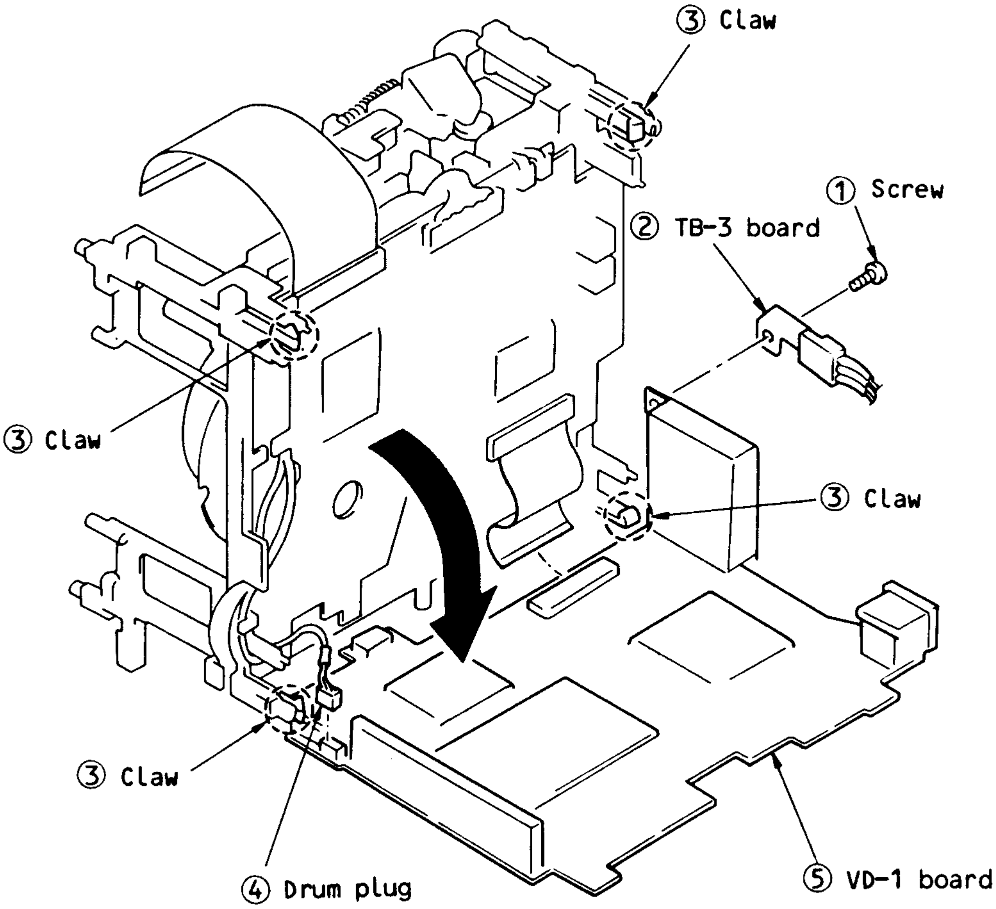
2-8. REMOVAL OF THE AD-1 AND VP-1 BOARDS

1) Remove the screw ①.
2) Remove the AD-1 board ② in the direction of the arrow Ⓐ.
3) Remove the VP-1 board ③ in the direction of the arrow B.


③ VP-1 board
① Screw
② AD-1 board
Ⓑ
Ⓑ
Ⓐ

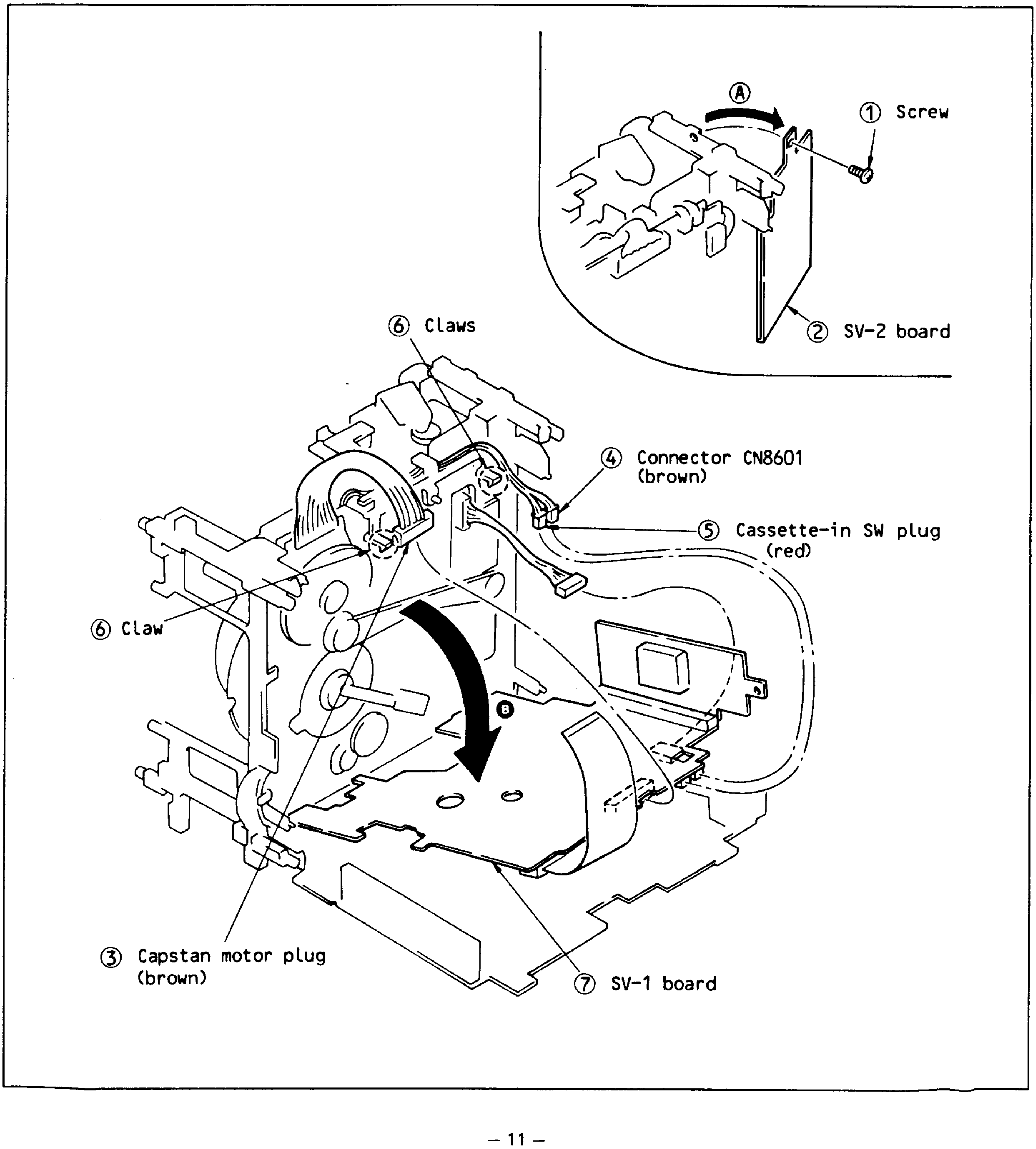
2-9. OPENING OF THE VD-1 BOARD

1) Remove the screw ① and the TB-3 board ②.
2) Remove the claws ③ in four places.
3) Remove the drum plug ④.
4) Open the VD-1 board ⑤ in the direction of the arrow.


③ Claw
① Screw
② TB-3 board
③ Claw
③ Claw
③ Claw
④ Drum plug
⑤ VD-1 board

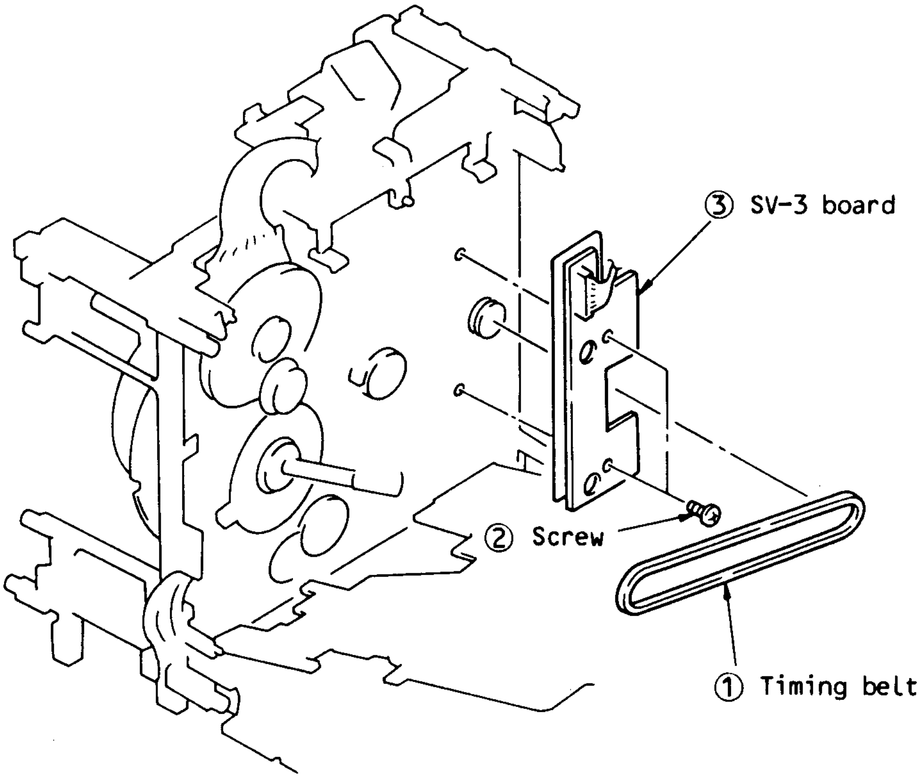
2-10. OPENING OF THE SV-1 AND SV-2 BOARDS

1) Remove the screw ① and open the SV-2 board ② in the direction Ⓐ.
2) Remove the capstan motor plug (brown) ③.
3) Remove the connector CN8601 (brown) ④.
4) Remove the cassette-in SW plug (red) ⑤.
5) Remove the claws ⑥ in two places and open the SV-1 board ⑦ in the direction of the arrow.


Ⓐ
① Screw
② SV-2 board
⑥ Claws
④ Connector CN8601 (brown)
⑤ Cassette-in SW plug (red)
⑥ Claw
Ⓑ
③ Capstan motor plug (brown)
⑦ SV-1 board

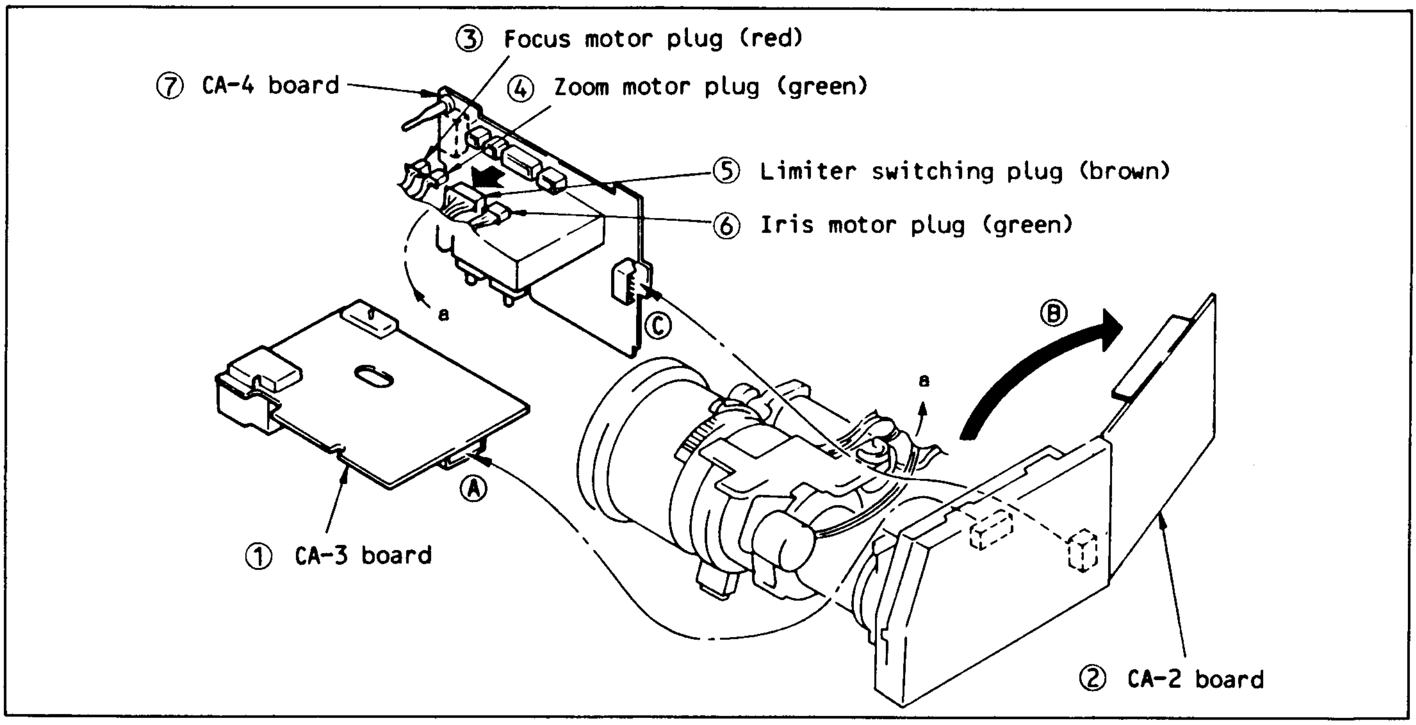
2-11. REMOVAL OF THE SV-3 BOARD

1) Remove the timing belt ①.
2) Remove the two screws ② and the SV-3 board.


③ SV-3 board
② Screw
① Timing belt

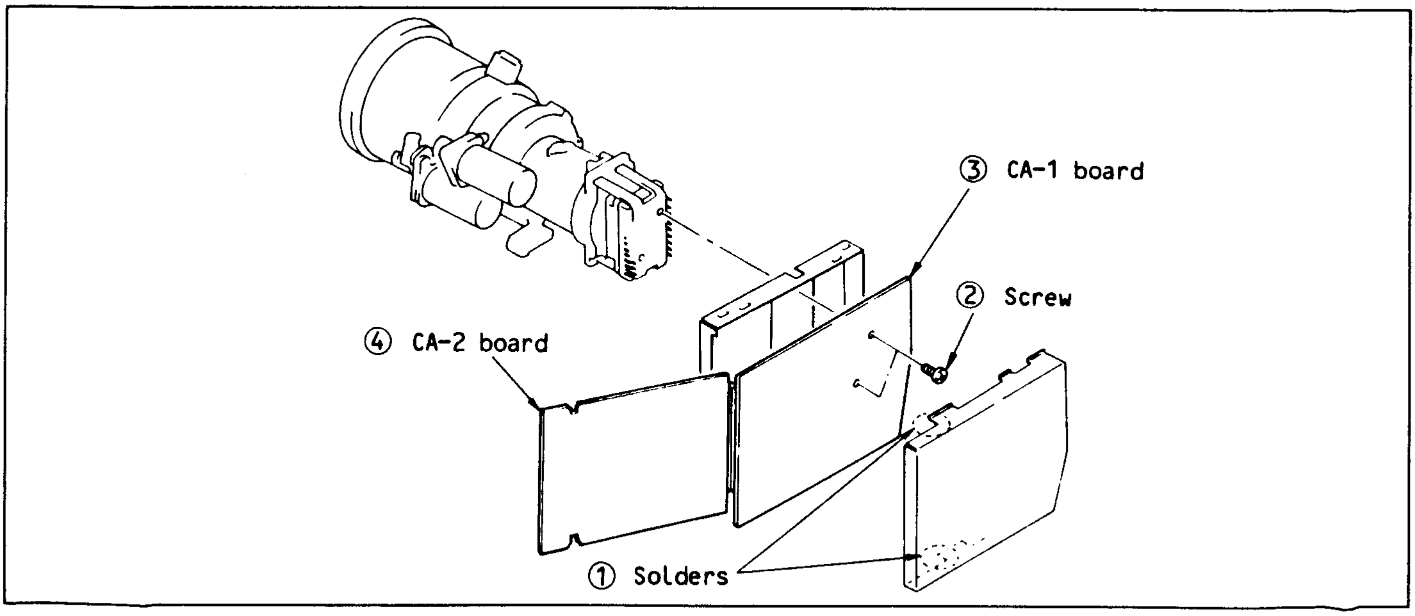
2-12. REMOVAL OF THE CA-3 AND CA-4 BOARDS

1) Remove the CA-3 board ① in the direction Ⓐ of the arrow.
2) Open the CA-2 board ② in the direction Ⓑ of the arrow.
3) Remove the focus motor plug (red) ③.
4) Remove the zoom motor plug (green) ④.
5) Remove the limiter switching plug (brown) ⑤.
6) Remove the iris motor plug (green) ⑥ and remove the CA-4 board ⑦ in the direction Ⓒ of the arrow.


③ Focus motor plug (red)
⑦ CA-4 board
④ Zoom motor plug (green)
⑤ Limiter switching plug (brown)
⑥ Iris motor plug (green)
a
Ⓒ
Ⓑ
a
Ⓐ
① CA-3 board
② CA-2 board

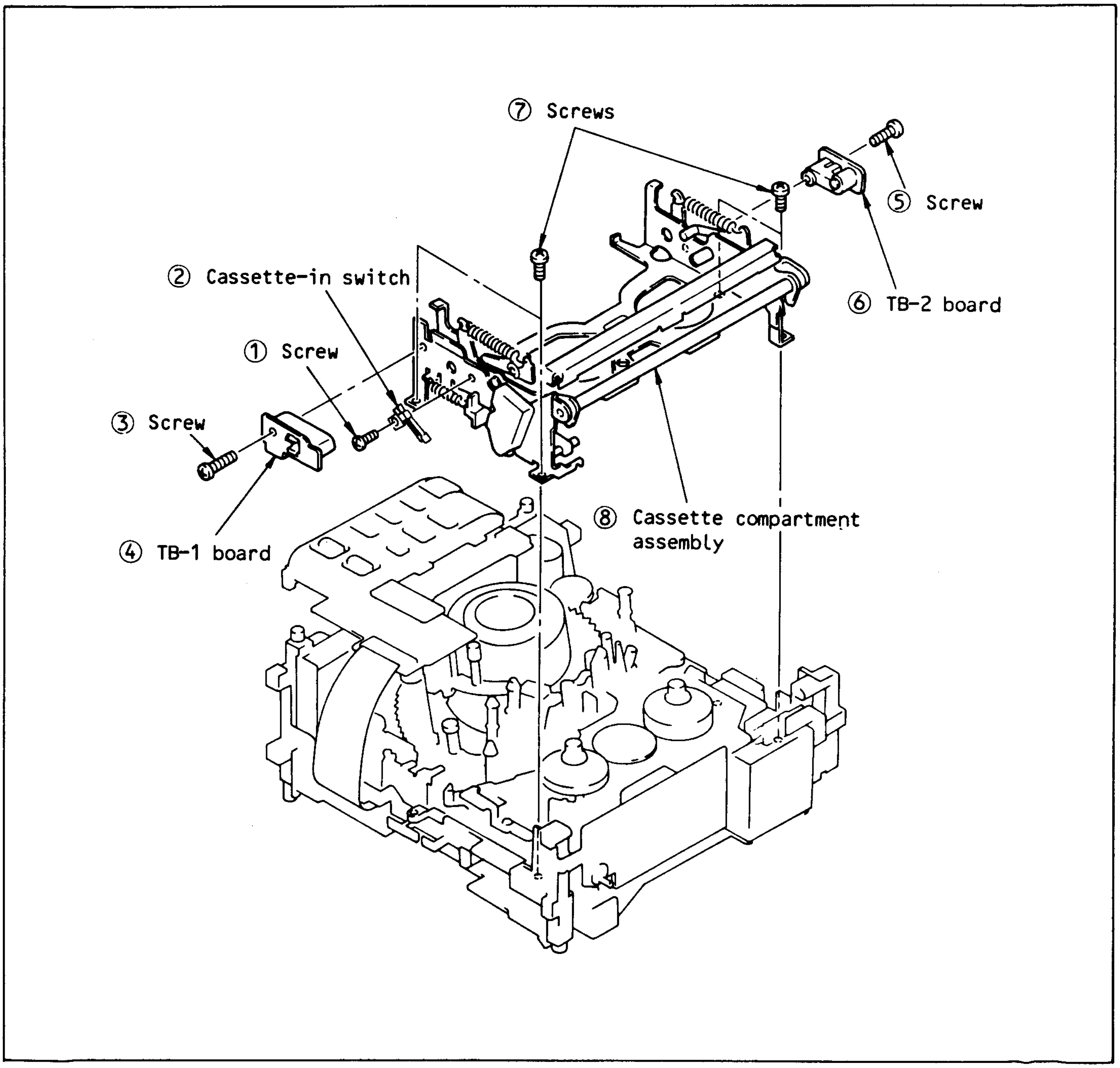
2-13. REMOVAL OF THE CA-1 AND CA-2 BOARDS

1) Remove the solder ① in two places.
2) Remove the two screws ② and the CA-1 board ③ and CA-2 board ④.


③ CA-1 board
② Screw
④ CA-2 board
① Solders

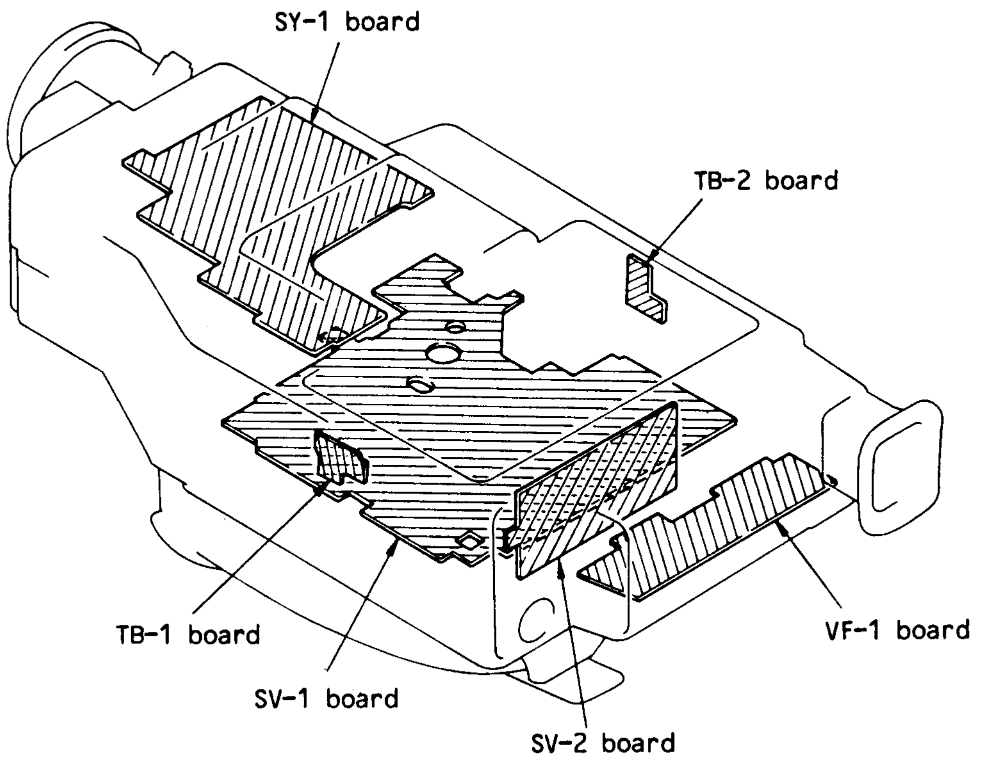
2-14. REMOVAL OF THE CASSETTE COMPARTMENT ASSEMBLY

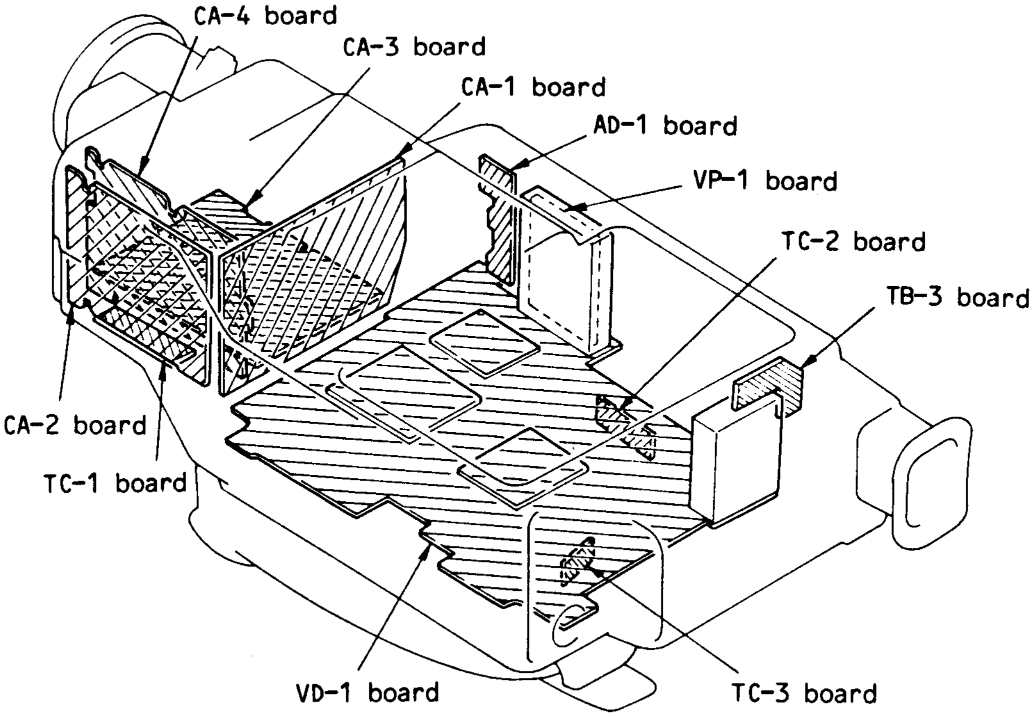
1) Remove the screw ① and the cassette-in switch ②.
2) Remove the screw ③ and the TB-1 board ④.
3) Remove the screw ⑤ and the TB-2 board ⑥.
4) Remove the four screws ⑦ and remove the cassette compartment assembly ⑧.


⑦ Screws
⑤ Screw
② Cassette-in switch
⑥ TB-2 board
① Screw
③ Screw
⑧ Cassette compartment assembly
④ TB-1 board

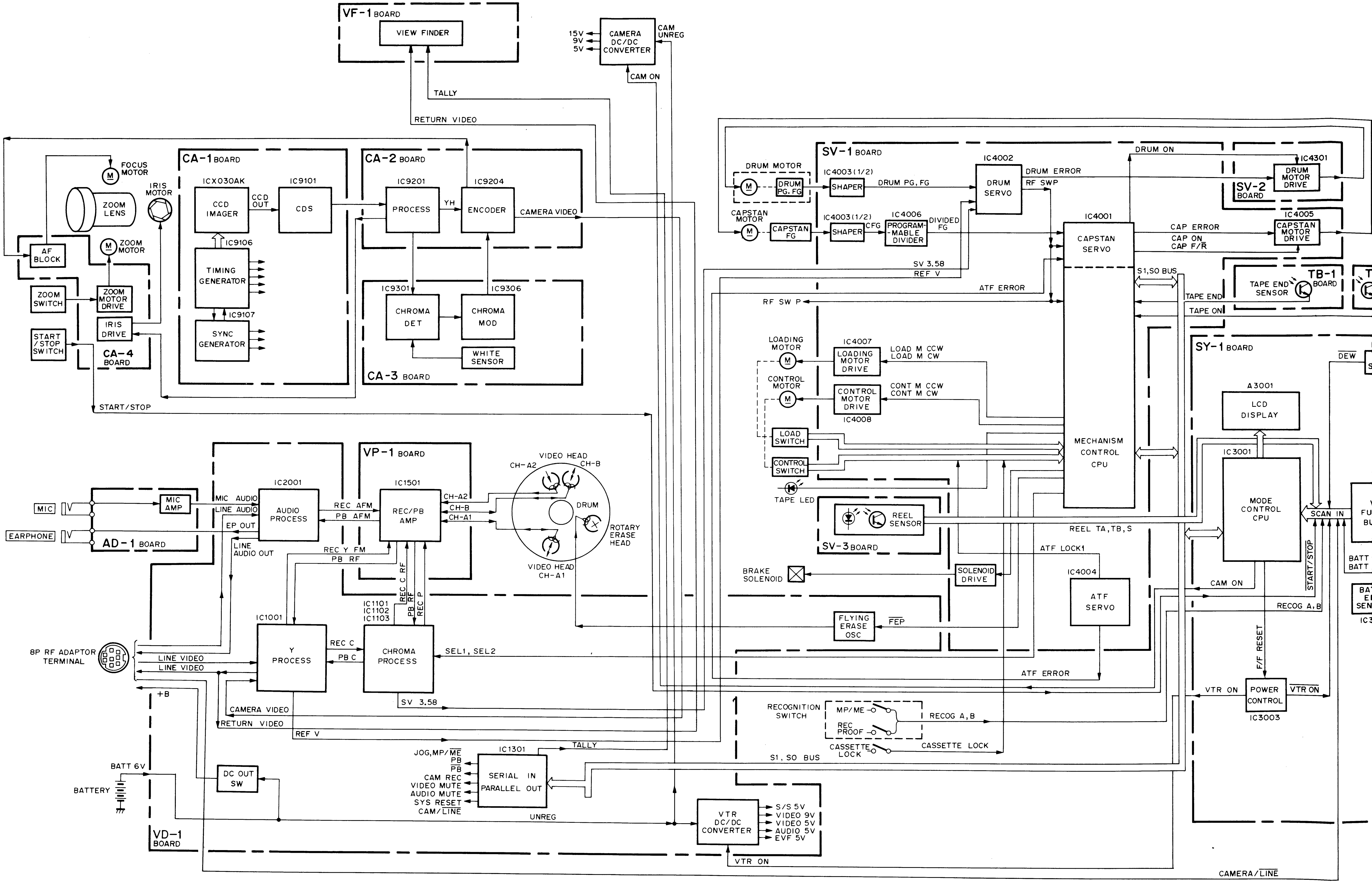
3. DIAGRAMS

3-1. CIRCUIT BOARD LOCATIONS

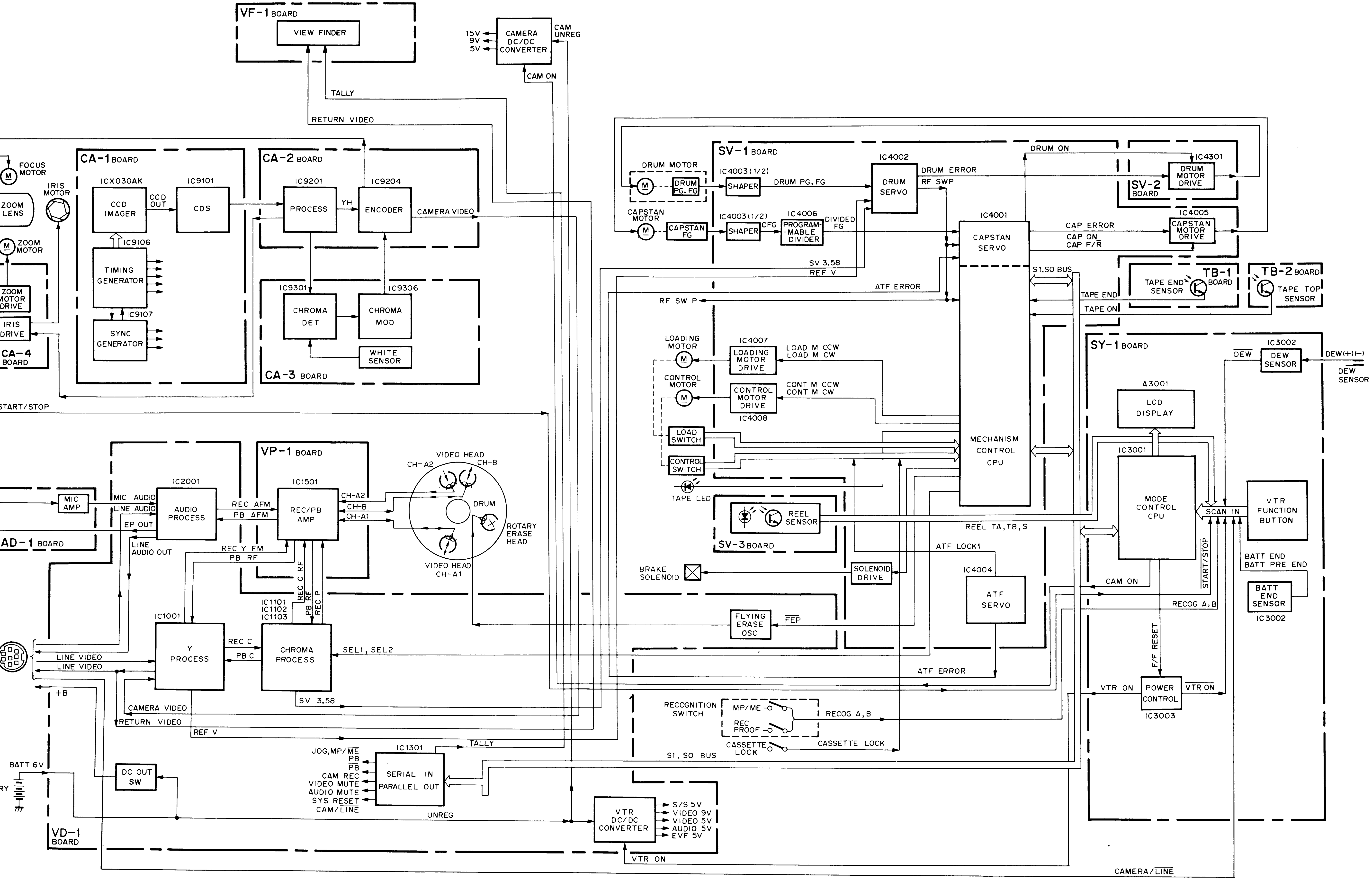

SY-1 board
TB-2 board
TB-1 board
VF-1 board
SV-1 board
SV-2 board


CA-4 board
CA-3 board
CA-1 board
AD-1 board
VP-1 board
TC-2 board
TB-3 board
CA-2 board
TC-1 board
VD-1 board
TC-3 board

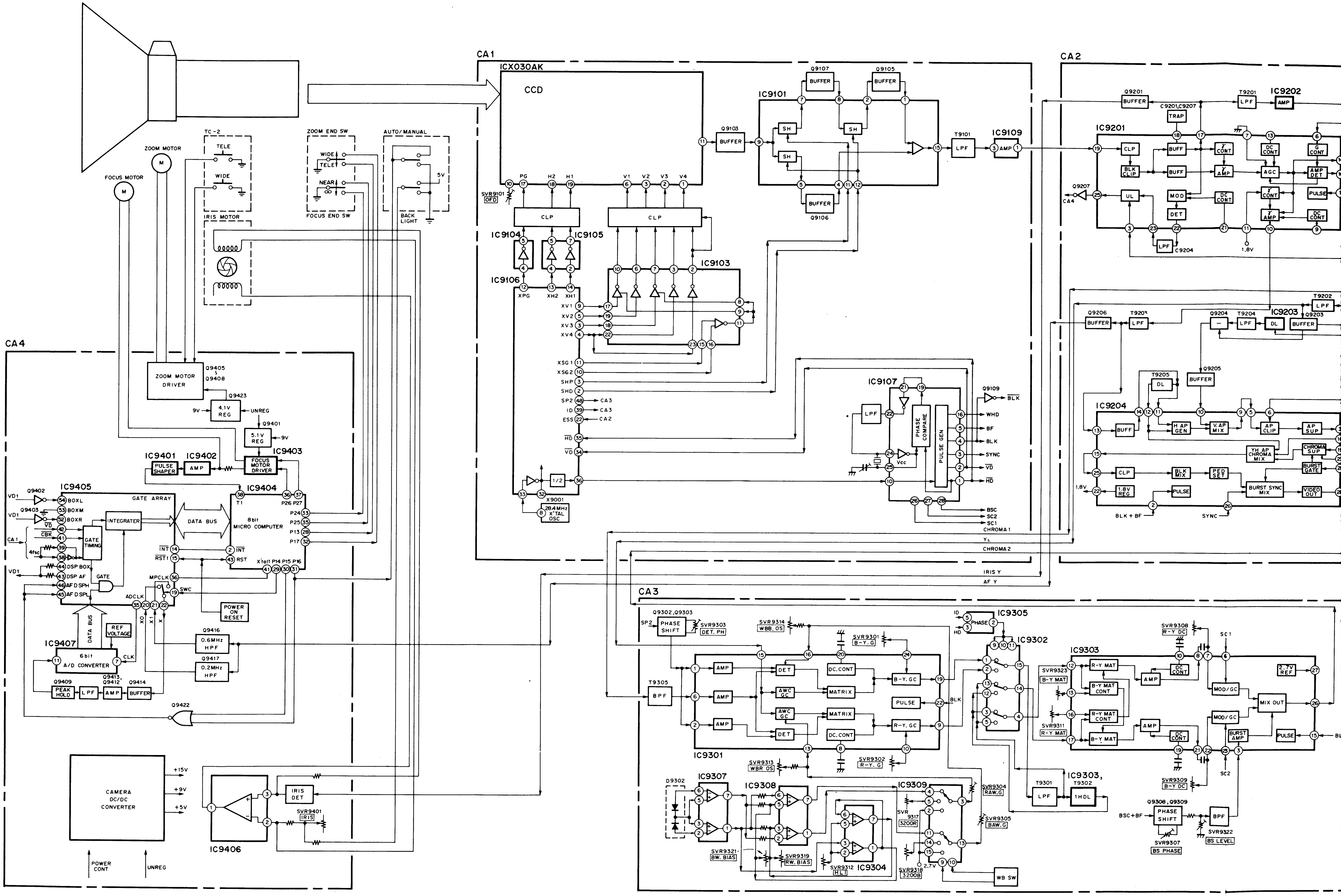
3-2. OVERALL BLOCK DIAGRAM

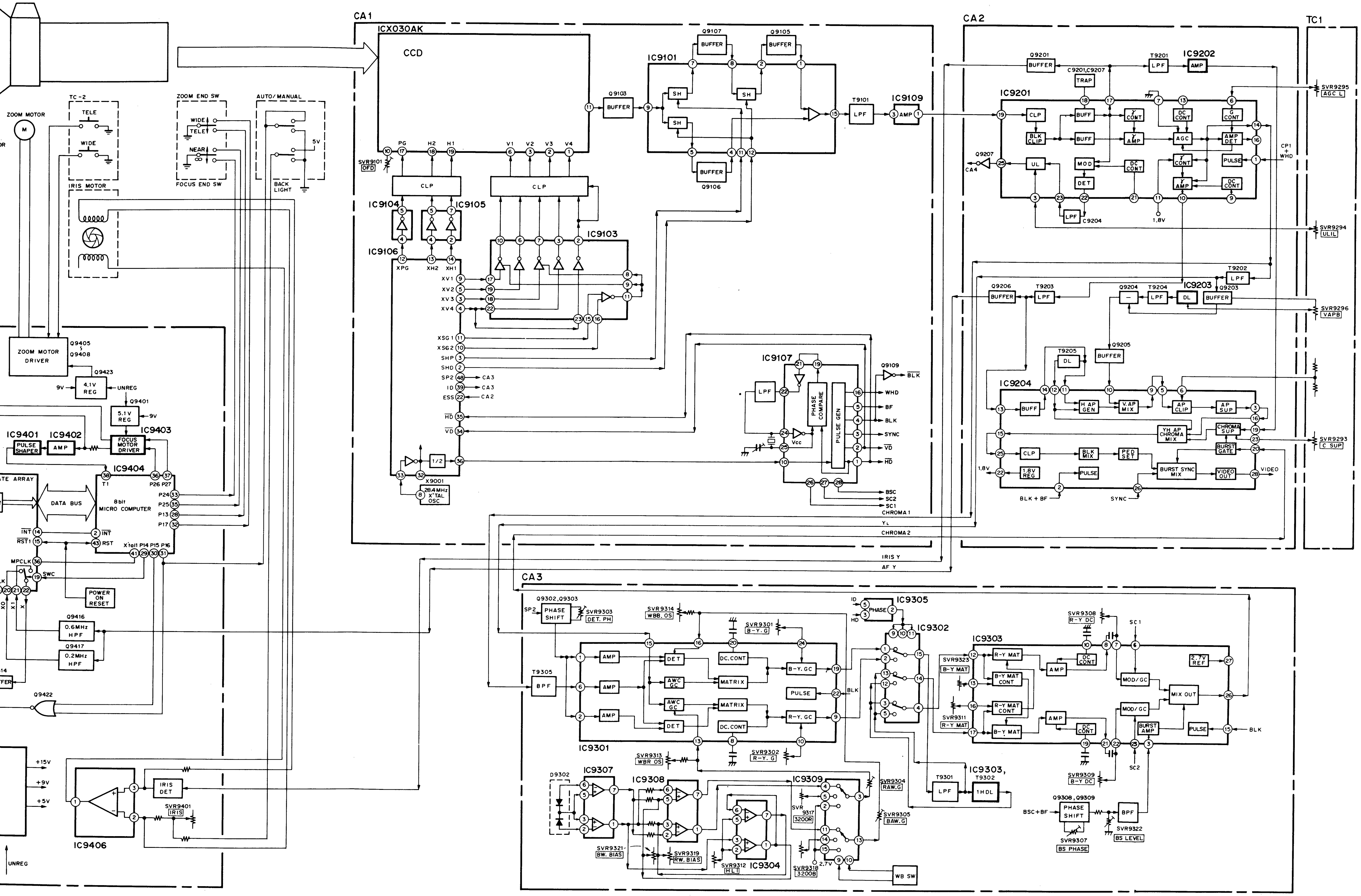

VF-1 BOARD
VIEW FINDER
TALLY
RETURN VIDEO
CAMERA DC/DC CONVERTER
15V
9V
5V
CAM UNREG
CAM ON
CA-1 BOARD
ICX030AK
CCD IMAGER
CCD OUT
IC9101
CDS
IC9106
TIMING GENERATOR
IC9107
SYNC GENERATOR
CA-2 BOARD
IC9201
PROCESS
YH
IC9204
ENCODER
CAMERA VIDEO
CA-3 BOARD
IC9301
CHROMA DET
IC9306
CHROMA MOD
WHITE SENSOR
FOCUS MOTOR
ZOOM LENS
IRIS MOTOR
ZOOM MOTOR
AF BLOCK
ZOOM SWITCH
ZOOM MOTOR DRIVE
IRIS DRIVE
START /STOP SWITCH
CA-4 BOARD
START/STOP
MIC
EARPHONE
MIC AMP
AD-1 BOARD
MIC AUDIO
LINE AUDIO
EP OUT
LINE AUDIO OUT
IC2001
AUDIO PROCESS
REC AFM
PB AFM
VP-1 BOARD
IC1501
REC/PB AMP
CH-A2
CH-B
CH-A1
VIDEO HEAD
DRUM
ROTARY ERASE HEAD
VIDEO HEAD CH-A1
REC Y FM
PB RF
REC C RF
PB RF
REC P
IC1101
IC1102
IC1103
IC1001
Y PROCESS
REC C
PB C
CHROMA PROCESS
SEL1, SEL2
SV 3.58
8P RF ADAPTOR TERMINAL
LINE VIDEO
LINE VIDEO
+B
CAMERA VIDEO
RETURN VIDEO
REF V
BATT 6V
BATTERY
DC OUT SW
JOG,MP/ME
PB
PB
CAM REC
VIDEO MUTE
AUDIO MUTE
SYS RESET
CAM/LINE
IC1301
SERIAL IN PARALLEL OUT
TALLY
UNREG
VD-1 BOARD
VTR DC/DC CONVERTER
S/S 5V
VIDEO 9V
VIDEO 5V
AUDIO 5V
EVF 5V
VTR ON
SV-1 BOARD
DRUM MOTOR
DRUM PG, FG
IC4003(1/2)
SHAPER
DRUM PG, FG
IC4002
DRUM SERVO
DRUM ERROR
RF SWP
CAPSTAN MOTOR
CAPSTAN FG
IC4003(1/2)
SHAPER
CFG
IC4006
PROGRAM-MABLE DIVIDER
DIVIDED FG
SV 3.58
REF V
IC4001
CAPSTAN SERVO
CAP ERROR
CAP ON
CAP F/R
DRUM ON
SV-2 BOARD
IC4301
DRUM MOTOR DRIVE
IC4005
CAPSTAN MOTOR DRIVE
ATF ERROR
S1,SO BUS
RF SW P
TAPE END SENSOR
TB-1 BOARD
TAPE END
TAPE ON
LOADING MOTOR
IC4007
LOADING MOTOR DRIVE
LOAD M CCW
LOAD M CW
CONTROL MOTOR
CONTROL MOTOR DRIVE
IC4008
CONT M CCW
CONT M CW
LOAD SWITCH
CONTROL SWITCH
TAPE LED
MECHANISM CONTROL CPU
REEL SENSOR
SV-3 BOARD
REEL TA,TB,S
ATF LOCK1
BRAKE SOLENOID
SOLENOID DRIVE
IC4004
ATF SERVO
FLYING ERASE OSC
FEP
ATF ERROR
RECOGNITION SWITCH
MP/ME
REC PROOF
RECOG A, B
CASSETTE LOCK
CASSETTE LOCK
S1, SO BUS
SY-1 BOARD
DEW
A3001
LCD DISPLAY
IC3001
MODE CONTROL CPU
SCAN IN
START/STOP
CAM ON
RECOG A, B
F/F RESET
VTR ON
POWER CONTROL
VTR ON
IC3003
BATT
BATT
CAMERA/LINE

GRAM

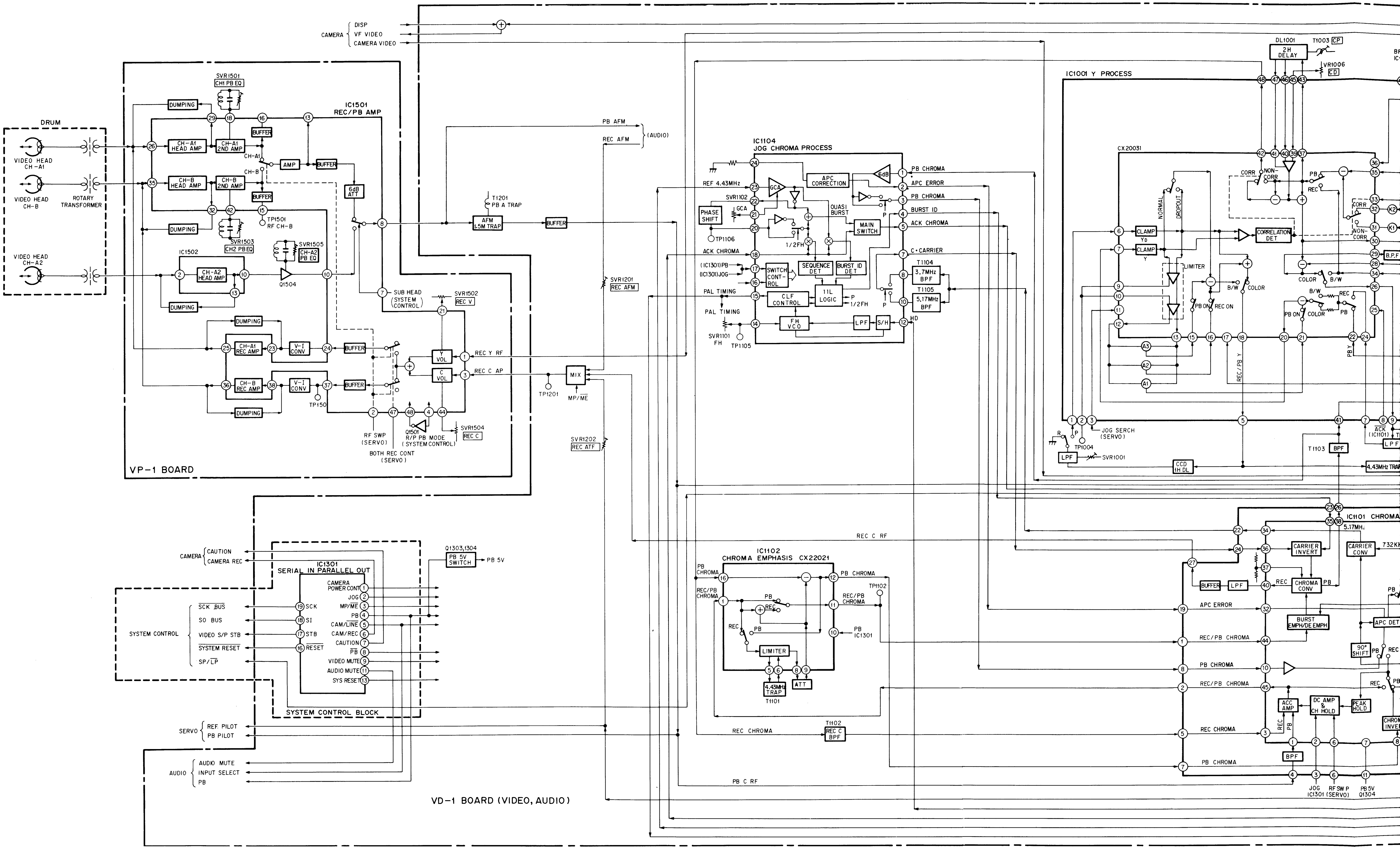

VF-1 BOARD
VIEW FINDER
TALLY
RETURN VIDEO
CAMERA DC/DC CONVERTER
15V
9V
5V
CAM UNREG
CAM ON
FOCUS MOTOR
IRIS MOTOR
ZOOM LENS
ZOOM MOTOR
ZOOM MOTOR DRIVE
IRIS DRIVE
CA-4 BOARD
CA-1 BOARD
ICX030AK
CCD IMAGER
CCD OUT
IC9101
CDS
IC9106
TIMING GENERATOR
IC9107
SYNC GENERATOR
CA-2 BOARD
IC9201
PROCESS
YH
IC9204
ENCODER
CAMERA VIDEO
IC9301
CHROMA DET
IC9306
CHROMA MOD
WHITE SENSOR
CA-3 BOARD
START/STOP
VP-1 BOARD
MIC AMP
MIC AUDIO
LINE AUDIO
EP OUT
LINE AUDIO OUT
IC2001
AUDIO PROCESS
REC AFM
PB AFM
IC1501
REC/PB AMP
CH-A2
CH-B
CH-A1
REC Y FM
PB RF
REC C RF
PB RF
REC P
VIDEO HEAD
CH-A2
CH-B
DRUM
ROTARY ERASE HEAD
VIDEO HEAD CH-A1
AD-1 BOARD
IC1001
Y PROCESS
REC C
PB C
IC1101
IC1102
IC1103
CHROMA PROCESS
SEL1, SEL2
SV 3.58
LINE VIDEO
LINE VIDEO
CAMERA VIDEO
RETURN VIDEO
REF V
+B
BATT 6V
DC OUT SW
VD-1 BOARD
IC1301
SERIAL IN PARALLEL OUT
TALLY
JOG,MP/ME
PB
PB
CAM REC
VIDEO MUTE
AUDIO MUTE
SYS RESET
CAM/LINE
UNREG
VTR DC/DC CONVERTER
S/S 5V
VIDEO 9V
VIDEO 5V
AUDIO 5V
EVF 5V
VTR ON
SV-1 BOARD
DRUM MOTOR
DRUM PG, FG
IC4003(1/2)
SHAPER
DRUM PG, FG
IC4002
DRUM SERVO
DRUM ERROR
RF SWP
DRUM ON
CAPSTAN MOTOR
CAPSTAN FG
IC4003(1/2)
SHAPER
CFG
IC4006
PROGRAM-MABLE DIVIDER
DIVIDED FG
SV 3.58
REF V
ATF ERROR
RF SW P
IC4001
CAPSTAN SERVO
CAP ERROR
CAP ON
CAP F/R
S1,SO BUS
MECHANISM CONTROL CPU
SV-2 BOARD
IC4301
DRUM MOTOR DRIVE
IC4005
CAPSTAN MOTOR DRIVE
TAPE END SENSOR
TB-1 BOARD
TB-2 BOARD
TAPE TOP SENSOR
TAPE END
TAPE ON
LOADING MOTOR
IC4007
LOADING MOTOR DRIVE
LOAD M CCW
LOAD M CW
CONTROL MOTOR
CONTROL MOTOR DRIVE
CONT M CCW
CONT M CW
IC4008
LOAD SWITCH
CONTROL SWITCH
TAPE LED
REEL SENSOR
SV-3 BOARD
REEL TA,TB,S
ATF LOCK1
BRAKE SOLENOID
SOLENOID DRIVE
IC4004
ATF SERVO
FLYING ERASE OSC
FEP
ATF ERROR
RECOGNITION SWITCH
MP/ME
REC PROOF
RECOG A,B
CASSETTE LOCK
CASSETTE LOCK
S1, SO BUS
SY-1 BOARD
IC3002
DEW SENSOR
DEW
DEW(+)(−)
DEW SENSOR
A3001
LCD DISPLAY
IC3001
MODE CONTROL CPU
SCAN IN
VTR FUNCTION BUTTON
START/STOP
BATT END
BATT PRE END
BATT END SENSOR
IC3002
CAM ON
RECOG A,B
F/F RESET
VTR ON
POWER CONTROL
VTR ON
IC3003
CAMERA/LINE

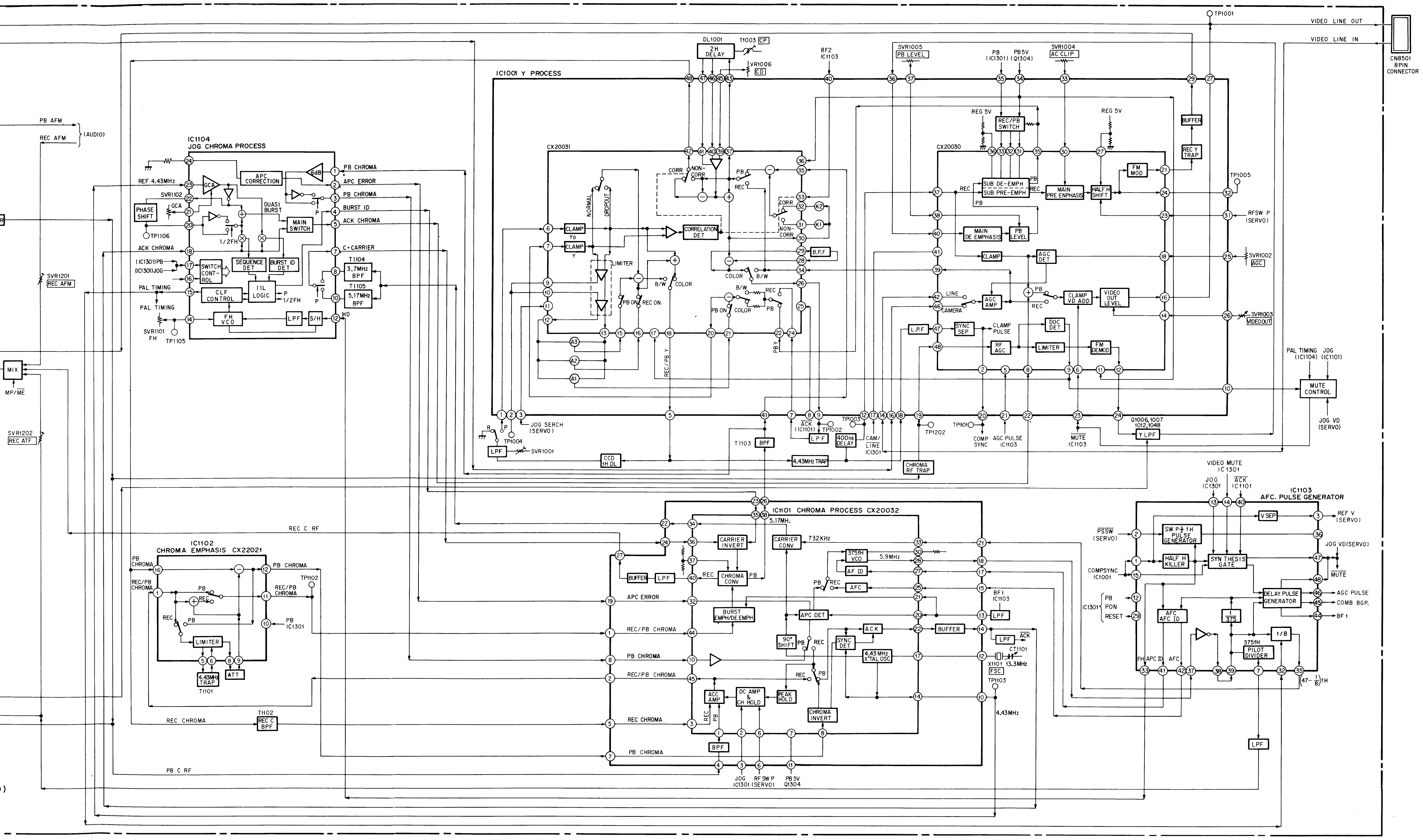
3-3. CAMERA BLOCK DIAGRAM


CA1
ICX030AK
CCD
CA2
CA3
CA4
ZOOM MOTOR
FOCUS MOTOR
TC-2
TELE
WIDE
IRIS MOTOR
ZOOM END SW
FOCUS END SW
AUTO/MANUAL
BACK LIGHT
5V
ZOOM MOTOR DRIVER
Q9405 ~ Q9408
Q9423
4.1V REG
UNREG
Q9401
5.1V REG
9V
IC9401 PULSE SHAPER
IC9402 AMP
IC9403 FOCUS MOTOR DRIVER
IC9404 8bit MICRO COMPUTER
IC9405 GATE ARRAY
DATA BUS
INTEGRATER
GATE TIMING
IC9407 6bit A/D CONVERTER
REF VOLTAGE
POWER ON RESET
Q9416 0.6MHz HPF
Q9417 0.2MHz HPF
Q9409 PEAK HOLD
LPF
AMP
Q9414 BUFFER
Q9422
CAMERA DC/DC CONVERTER
+15V
+9V
+5V
POWER CONT
UNREG
IC9406
IRIS DET
SVR9401 IRIS
SVR9101 OFD
IC9104
IC9105
IC9106
IC9103
CLP
X9001 28.4MHz X'TAL OSC
IC9101
SH
Q9103 BUFFER
Q9107 BUFFER
Q9105 BUFFER
Q9106 BUFFER
T9101 LPF
IC9109 AMP
IC9107
PHASE COMPARE
PULSE GEN
Q9109
BLK
WHD
BF
SYNC
BSC
SC2
SC1
CHROMA 1
YL
CHROMA 2
IRIS Y
AF Y
IC9201
IC9202 AMP
Q9201 BUFFER
T9201 LPF
C9201,C9207 TRAP
IC9203
IC9204
Q9206 BUFFER
Q9204
Q9205 BUFFER
T9202
T9203
T9204
T9205 DL
H AP GEN
V AP MIX
AP CLIP
AP SUP
YH AP CHROMA MIX
CHROMA SUP
BURST GATE
BURST SYNC MIX
VIDEO OUT
1.8V REG
PULSE
PED SET
BLK MIX
BLK + BF
SYNC
IC9301
IC9302
IC9303
IC9304
IC9305
IC9307
IC9308
IC9309
Q9302,Q9303 PHASE SHIFT
SVR9303 DET. PH
SVR9314 WBB. OS
SVR9301 B-Y.G
SVR9313 WBR. OS
SVR9302 R-Y.G
T9305 BPF
MATRIX
DC.CONT
B-Y.GC
R-Y.GC
AWC GC
DET
T9301 LPF
IC9303, T9302 1HDL
SVR9308 R-Y DC
SVR9323 B-Y MAT
SVR9311 R-Y MAT
SVR9309 B-Y DC
R-Y MAT
B-Y MAT
R-Y MAT CONT
B-Y MAT CONT
MOD/GC
MIX OUT
BURST AMP
2.7V REF
Q9308,Q9309 PHASE SHIFT
BSC+BF
SVR9307 BS PHASE
SVR9322 BS LEVEL
D9302
SVR9321 BW. BIAS
SVR9319 RW. BIAS
SVR9312 HLT
SVR9304 RAW.G
SVR9305 BAW.G
SVR9317 3200R
SVR9318 3200B
WB SW


CA1
ICX030AK
CCD
IC9101
Q9107
Q9105
BUFFER
SH
Q9106
Q9103
T9101
LPF
IC9109
AMP
SVR9101 OFD
PG H2 H1 V1 V2 V3 V4
CLP
IC9104
IC9105
IC9106
IC9103
XPG XH2 XH1
XV1 XV2 XV3 XV4
XSG1 XSG2 SHP SHD SP2 ID ESS HD VD
CA3 CA3 CA2
IC9107
PHASE COMPARE
PULSE GEN
Q9109
BLK WHD BF BLK SYNC VD HD
BSC SC2 SC1 CHROMA 1
YL CHROMA 2 IRIS Y AF Y
1/2
X9001 28.4MHz X'TAL OSC
CA2
TC1
Q9201
T9201
IC9202
IC9201
C9201,C9207 TRAP
CLP BUFF γ CONT DC CONT G CONT BLK CLIP AMP AGC AMP DET PULSE UL MOD DET
C9204
1.8V
Q9207 CA4
CP1 WHD
SVR9295 AGC L
SVR9294 ULIL
T9202
Q9206 T9203 Q9204 T9204 IC9203 Q9203
DL
SVR9296 VAPB
T9205 Q9205
IC9204
H AP GEN V.AP MIX AP CLIP AP SUP
YH AP CHROMA MIX CHROMA SUP BURST GATE
PED SET BLK MIX
BURST SYNC MIX VIDEO OUT VIDEO
1.8V REG
BLK+BF SYNC
SVR9293 C SUP
ZOOM MOTOR
TC-2 TELE WIDE
IRIS MOTOR
ZOOM END SW WIDE TELE NEAR FOCUS END SW
AUTO/MANUAL 5V BACK LIGHT
ZOOM MOTOR DRIVER
Q9405 Q9408 Q9423
4.1V REG UNREG 9V
Q9401 5.1V REG
IC9401 PULSE SHAPER
IC9402 AMP
IC9403 FOCUS MOTOR DRIVER
IC9404
8bit MICRO COMPUTER
DATA BUS
ATE ARRAY
T1 P26 P27 P24 P25 P13 P17
INT RST1 RST INT X'tal1 P14 P15 P16
MPCLK SWC
POWER ON RESET
Q9416 0.6MHz HPF
Q9417 0.2MHz HPF
Q9422
+15V +9V +5V
IC9406
IRIS DET
SVR9401 IRIS
UNREG
CA3
Q9302,Q9303 PHASE SHIFT SP2
SVR9303 DET. PH
T9305 BPF
IC9301
SVR9314 WBB. OS
SVR9301 B-Y. G
DET AWC GC DC.CONT MATRIX B-Y. GC R-Y. GC PULSE
SVR9313 WBR OS
SVR9302 R-Y. G
IC9305 PHASE ID HD
IC9302
BLK
IC9303
SVR9323 B-Y MAT
SVR9311 R-Y MAT
R-Y MAT B-Y MAT CONT R-Y MAT CONT B-Y MAT
SVR9308 R-Y DC
SC1 SC2
2.7V REF
MOD/GC MIX OUT BURST AMP
SVR9309 B-Y DC
T9301 LPF
IC9303, T9302 1HDL
Q9308,Q9309 PHASE SHIFT BSC+BF
SVR9307 BS PHASE
BPF SVR9322 BS LEVEL
D9302
IC9307
IC9308
IC9309
SVR9304 RAW.G
SVR9305 BAW.G
SVR 9317 3200R
SVR9316 3200B
SVR9321 BW. BIAS
SVR9319 RW. BIAS
SVR9312 HL1
IC9304
2.7V
WB SW

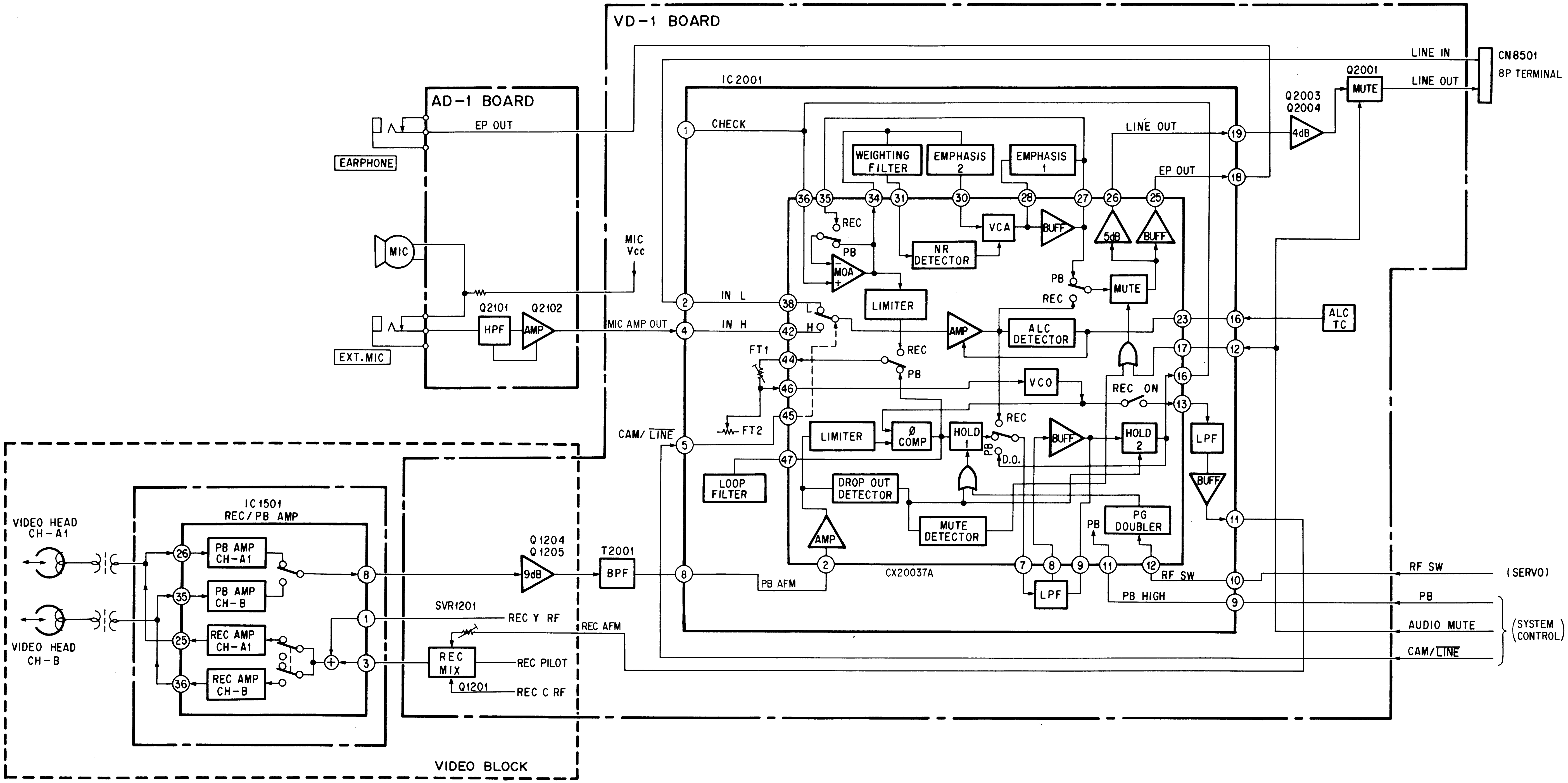
3-4. VIDEO BLOCK DIAGRAM

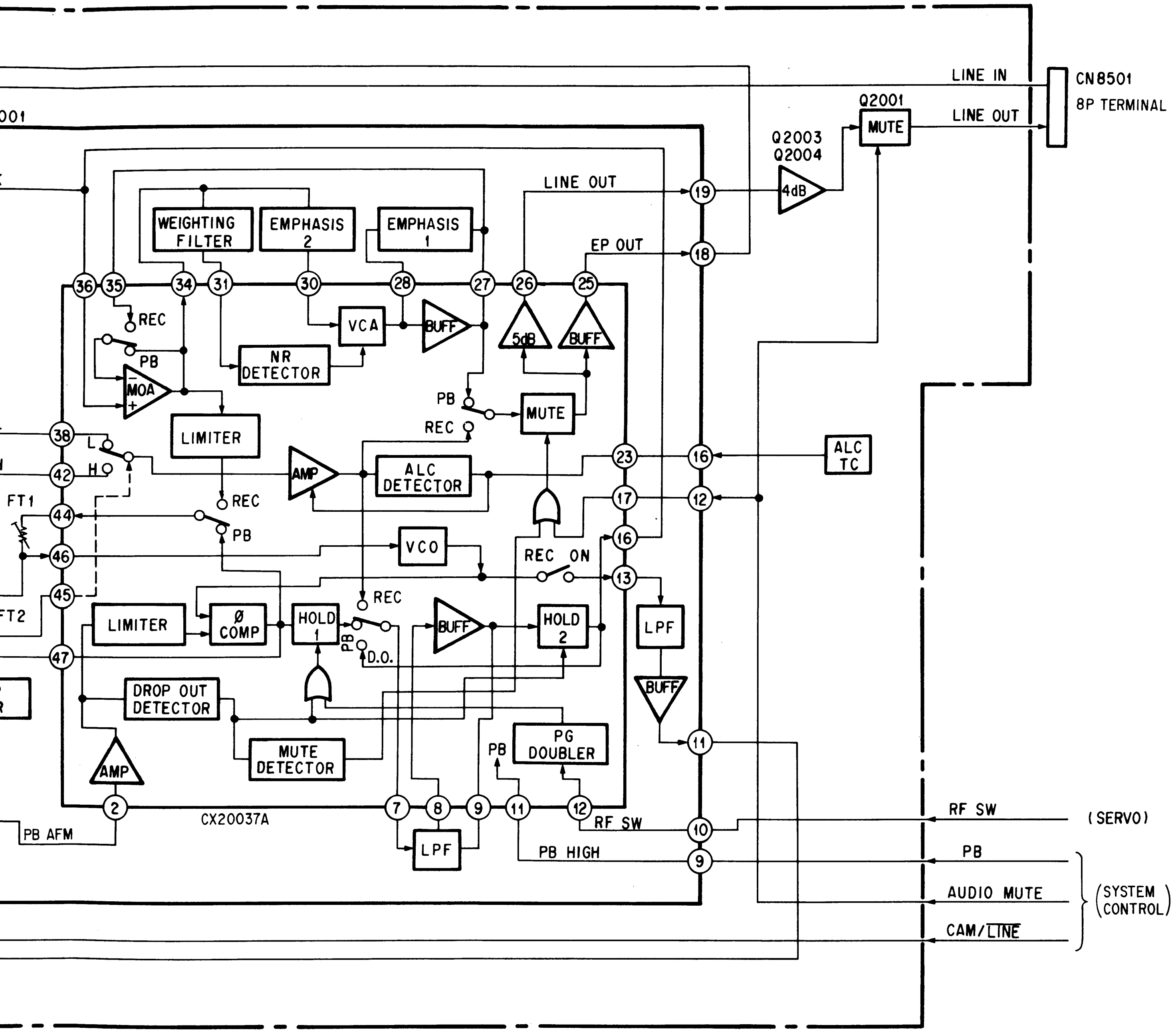

CAMERA
DISP
VF VIDEO
CAMERA VIDEO
DRUM
VIDEO HEAD CH-A1
VIDEO HEAD CH-B
ROTARY TRANSFORMER
VIDEO HEAD CH-A2
SVR1501 CH1 PB EQ
DUMPING
IC1501 REC/PB AMP
CH-A1 HEAD AMP
CH-A1 2ND AMP
CH-B HEAD AMP
CH-B 2ND AMP
BUFFER
AMP
6dB ATT
TP1501 RF CH-B
SVR1503 CH2 PB EQ
IC1502
CH-A2 HEAD AMP
SVR1505 CH-A2 PB EQ
Q1504
SUB HEAD (SYSTEM CONTROL)
SVR1502 REC V
CH-A1 REC AMP
CH-B REC AMP
V-I CONV
Y VOL
C VOL
REC Y RF
REC C AP
TP150
RF SWP (SERVO)
Q1501 R/P PB MODE (SYSTEM CONTROL)
SVR1504 REC C
BOTH REC CONT (SERVO)
VP-1 BOARD
PB AFM
REC AFM
(AUDIO)
T1201 PB A TRAP
AFM 1.5M TRAP
BUFFER
SVR1201 REC AFM
MIX
TP1201
MP/ME
SVR1202 REC ATF
IC1104 JOG CHROMA PROCESS
REF 4.43MHz
SVR1102
GCA
APC CORRECTION
6dB
PHASE SHIFT
QUASI BURST
MAIN SWITCH
1/2FH
TP1106
ACK CHROMA
(IC1301)PB
(IC1301)JOG
SWITCH CONTROL
SEQUENCE DET
BURST ID DET
PAL TIMING
CLF CONTROL
1 1L LOGIC
P 1/2FH
FH VCO
LPF
S/H
SVR1101 FH
TP1105
PB CHROMA
APC ERROR
BURST ID
C·CARRIER
T1104 3.7MHz BPF
T1105 5.17MHz BPF
HD
IC1001 Y PROCESS
DL1001 2H DELAY
T1003 CP
VR1006 CD
CX20031
NORMAL
DROPOUT
CORR
NON-CORR
CLAMP
YD
Y
CORRELATION DET
LIMITER
B/W
COLOR
PB ON
REC ON
REC/PB Y
PB Y
A1
A2
A3
JOG SERCH (SERVO)
TP1004
LPF
SVR1001
CCD 1H DL
T1103 BPF
ACK (IC1101)
4.43MHz TRAP
IC1101 CHROMA
5.17MHz
732KH
CARRIER INVERT
CARRIER CONV
CHROMA CONV
BUFFER
BURST EMPH/DEEMPH
APC DET
90° SHIFT
ACC AMP
DC AMP & CH HOLD
PEAK HOLD
CHROMA INVERT
BPF
REC CHROMA
REC/PB CHROMA
JOG IC1301
RF SWP (SERVO)
PB 5V Q1304
REC C RF
IC1102 CHROMA EMPHASIS CX22021
TP1102
LIMITER
ATT
4.43MHz TRAP T1101
PB IC1301
T1102 REC C BPF
PB C RF
CAMERA
CAUTION
CAMERA REC
Q1303,1304 PB 5V SWITCH
PB 5V
IC1301 SERIAL IN PARALLEL OUT
SYSTEM CONTROL
SCK BUS
SO BUS
VIDEO S/P STB
SYSTEM RESET
SP/LP
SCK
SI
STB
RESET
CAMERA POWER CONT
JOG
MP/ME
PB
CAM/LINE
CAM/REC
CAUTION
PB
VIDEO MUTE
AUDIO MUTE
SYS RESET
SYSTEM CONTROL BLOCK
SERVO
REF PILOT
PB PILOT
AUDIO
AUDIO MUTE
INPUT SELECT
PB
VD-1 BOARD (VIDEO, AUDIO)


TP1001
VIDEO LINE OUT
VIDEO LINE IN
CN8501
8PIN
CONNECTOR
DL1001
2H DELAY
T1003 CP
VR1006 CD
BF2
IC1103
SVR1005
PB LEVEL
PB (IC1301)
PB5V (Q1304)
SVR1004
AC CLIP
IC1001 Y PROCESS
PB AFM
REC AFM
(AUDIO)
IC1104
JOG CHROMA PROCESS
REF 4.43MHz
SVR1102
GCA
PHASE SHIFT
TP1106
APC CORRECTION
6dB
QUASI BURST
MAIN SWITCH
1/2FH
PB CHROMA
APC ERROR
PB CHROMA
BURST ID
ACK CHROMA
C•CARRIER
T1104
3.7MHz BPF
T1105
5.17MHz BPF
ACK CHROMA
(IC1301)PB
(IC1301)JOG
SWITCH CONTROL
SEQUENCE DET
BURST ID DET
PAL TIMING
CLF CONTROL
1 1L LOGIC
P
1/2FH
PAL TIMING
FH VCO
LPF
S/H
HD
SVR1101
FH
TP1105
SVR1201
REC AFM
MIX
MP/ME
SVR1202
REC ATF
CX20031
NORMAL
DROPOUT
CORR
NON-CORR
CLAMP Yo
CLAMP Y
LIMITER
CORRELATION DET
B/W
COLOR
PB ON
REC ON
B.P.F
REC
PB
K2
K1
REC/PB Y
PB Y
A1
A2
A3
JOG SERCH (SERVO)
TP1004
LPF
SVR1001
CCD 1H DL
T1103
BPF
4.43MHz TRAP
ACK (IC1101)
TP1002
TP1003
400ns DELAY
CAM/LINE
IC1301
CHROMA RF TRAP
TP1202
TP1101
COMP SYNC
AGC PULSE IC1103
MUTE IC1103
Q1006,1007 1012,1048
Y LPF
REG 5V
REC/PB SWITCH
CX20030
SUB DE-EMPH
SUB PRE-EMPH
MAIN PRE ENPHASIS
HALF H SHIFT
FM MOD
BUFFER
REC Y TRAP
TP1005
RFSW P (SERVO)
MAIN DE EMPHASIS
PB LEVEL
CLAMP
AGC DET
SVR1002
AGC
LINE
CAMERA
AGC AMP
CLAMP VD ADD
VIDEO OUT LEVEL
SVR1003
VIDEO OUT
L.P.F
SYNC SEP
CLAMP PULSE
DOC DET
RF AGC
LIMITER
FM DEMOD
PAL TIMING (IC1104)
JOG (IC1101)
MUTE CONTROL
JOG VD (SERVO)
VIDEO MUTE IC1301
JOG IC1301
ACK IC1101
IC1103
AFC. PULSE GENERATOR
PSSW (SERVO)
SW P 1/2 fH PULSE GENERATOR
V SEP
REF V (SERVO)
JOG VD(SERVO)
COMPSYNC IC1001
HALF H KILLER
SYN THESIS GATE
MUTE
IC1301
PB
PON
RESET
AFC AFC ID
1/375
DELAY PULSE GENERATOR
AGC PULSE
COMB BGP.
BF1
375fH PILOT DIVIDER
1/8
FH APC ID AFC
(47-1/8)fH
LPF
REC C RF
IC1102
CHROMA EMPHASIS CX22021
PB CHROMA
REC/PB CHROMA
ATT
4.43MHz TRAP
T1101
TP1102
PB IC1301
REC CHROMA
T1102
REC C BPF
PB C RF
IC1101 CHROMA PROCESS CX20032
5.17MHz
CARRIER INVERT
CARRIER CONV
732KHz
375fH VCO
5.9MHz
AF ID
AFC
BUFFER
LPF
CHROMA CONV
APC ERROR
BURST EMPH/DE EMPH
APC DET
BF1 IC1103
LPF
REC/PB CHROMA
90° SHIFT
SYNC DET
ACK
BUFFER
LPF
ACK
PB CHROMA
4.43MHz X'TAL OSC
X1101
CT1101
13.3MHz
FSC
TP1103
REC/PB CHROMA
ACC AMP
DC AMP & CH HOLD
PEAK HOLD
CHROMA INVERT
4.43MHz
REC CHROMA
BPF
PB CHROMA
JOG IC1301
RF SW P (SERVO)
PB 5V Q1304

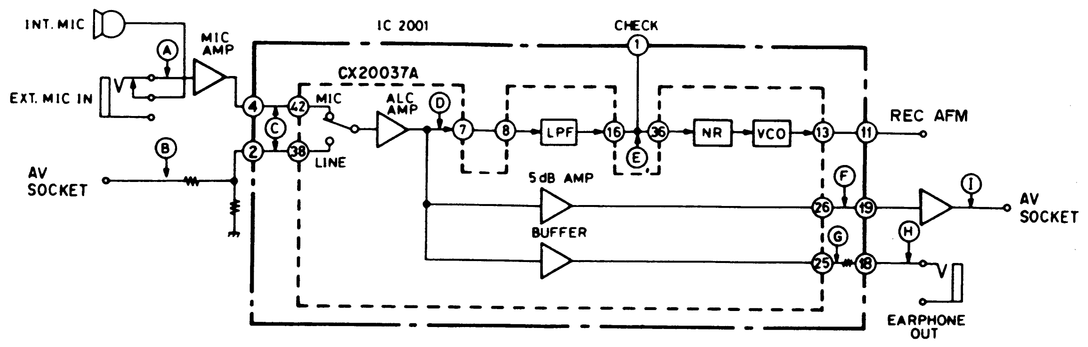
3-5. AUDIO BLOCK DIAGRAM

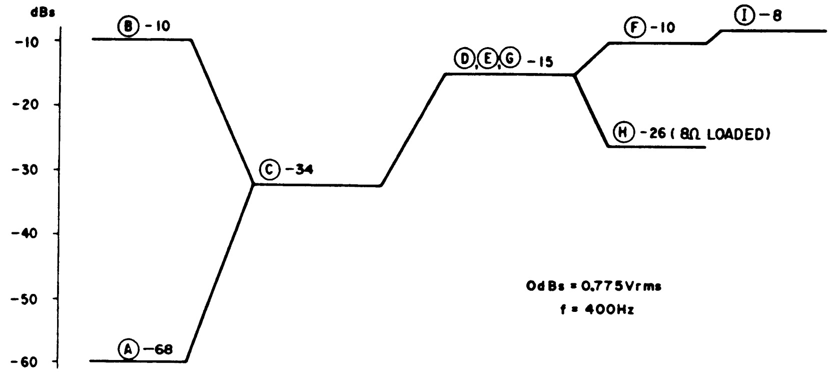
3-6. AUDI


VD-1 BOARD
AD-1 BOARD
EP OUT
EARPHONE
MIC
MIC Vcc
Q2101
Q2102
HPF
AMP
MIC AMP OUT
EXT.MIC
IC2001
CHECK
IN L
IN H
FT1
FT2
CAM/LINE
WEIGHTING FILTER
EMPHASIS 2
EMPHASIS 1
REC
PB
MOA
NR DETECTOR
VCA
BUFF
5dB
LIMITER
AMP
ALC DETECTOR
MUTE
VCO
REC ON
Ø COMP
HOLD 1
HOLD 2
D.O.
LOOP FILTER
DROP OUT DETECTOR
MUTE DETECTOR
PG DOUBLER
LPF
CX20037A
PB AFM
RF SW
PB HIGH
LINE OUT
EP OUT
LINE IN
Q2003
Q2004
4dB
Q2001
MUTE
CN8501
8P TERMINAL
ALC TC
RF SW
(SERVO)
PB
AUDIO MUTE
CAM/LINE
(SYSTEM CONTROL)
VIDEO HEAD CH-A1
VIDEO HEAD CH-B
IC1501
REC/PB AMP
PB AMP CH-A1
PB AMP CH-B
REC AMP CH-A1
REC AMP CH-B
Q1204
Q1205
9dB
T2001
BPF
SVR1201
REC Y RF
REC AFM
REC MIX
REC PILOT
Q1201
REC C RF
VIDEO BLOCK

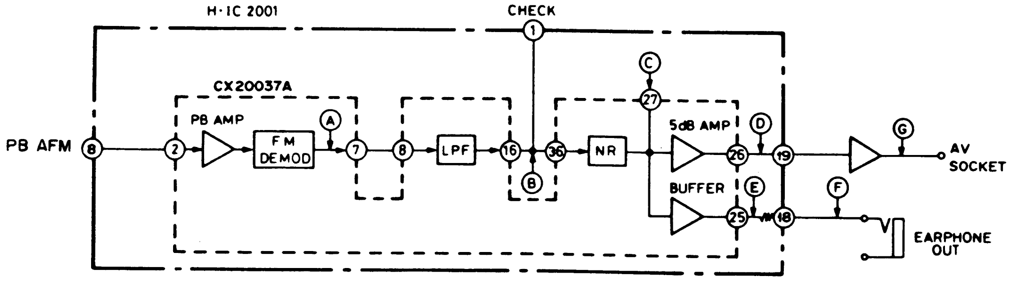

LINE IN
LINE OUT
CN8501
8P TERMINAL
Q2001
MUTE
Q2003
Q2004
4dB
LINE OUT
EP OUT
WEIGHTING FILTER
EMPHASIS 2
EMPHASIS 1
VCA
BUFF
NR DETECTOR
5dB
BUFF
MOA
REC
PB
LIMITER
MUTE
AMP
ALC DETECTOR
ALC TC
VCO
REC ON
LIMITER
Ø COMP
HOLD 1
HOLD 2
D.O.
LPF
BUFF
DROP OUT DETECTOR
MUTE DETECTOR
PG DOUBLER
AMP
CX20037A
PB AFM
FT1
FT2
LPF
RF SW
PB HIGH
RF SW
PB
AUDIO MUTE
CAM/LINE
(SERVO)
(SYSTEM CONTROL)

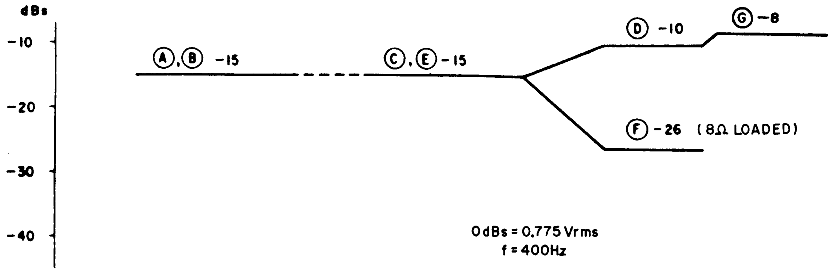
3-6. AUDIO LEVEL DIAGRAM


INT. MIC
EXT. MIC IN
AV SOCKET
MIC AMP
IC 2001
CHECK
CX20037A
MIC
LINE
ALC AMP
LPF
NR
VCO
5dB AMP
BUFFER
REC AFM
AV SOCKET
EARPHONE OUT



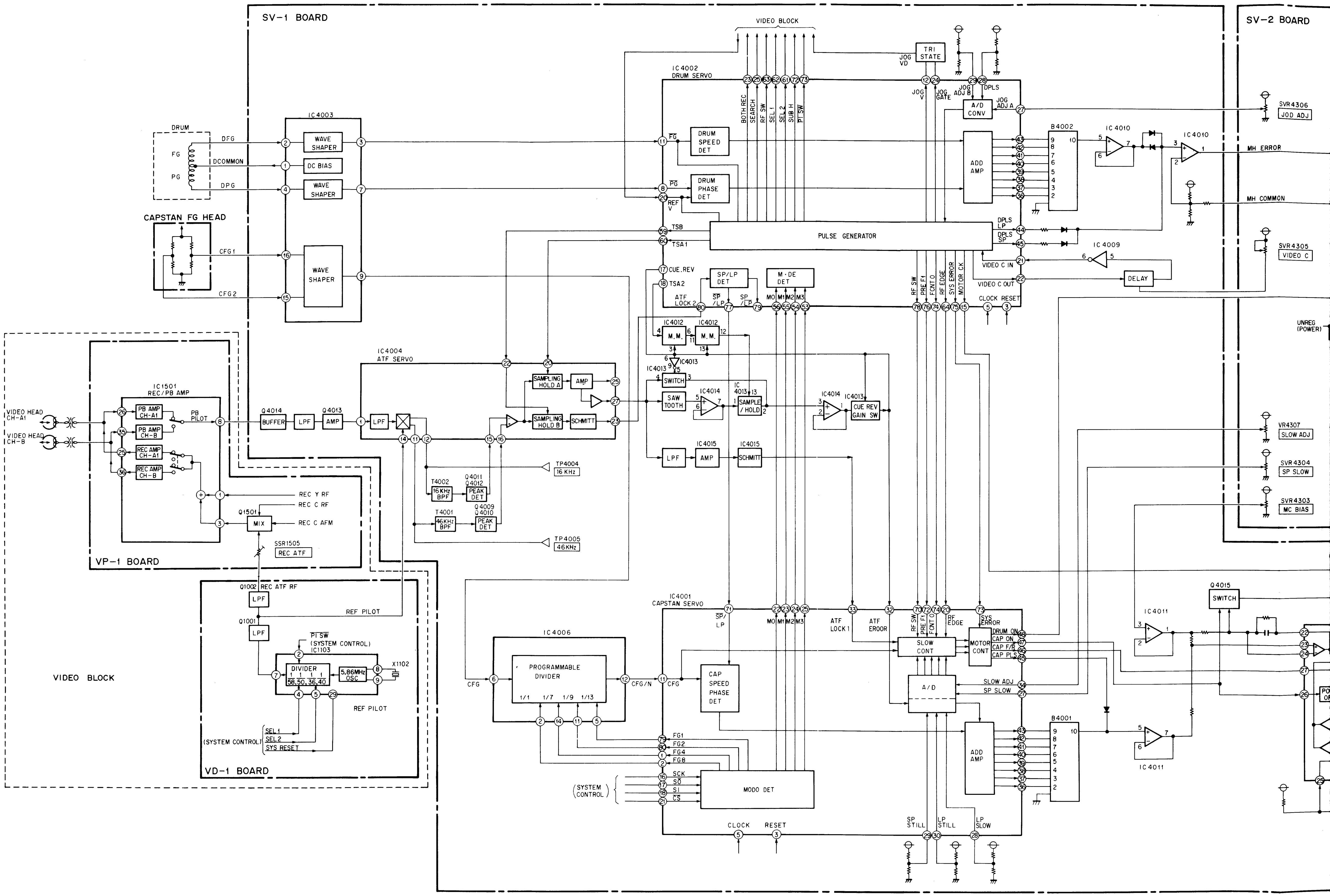
0dBs = 0.775Vrms
f = 400Hz

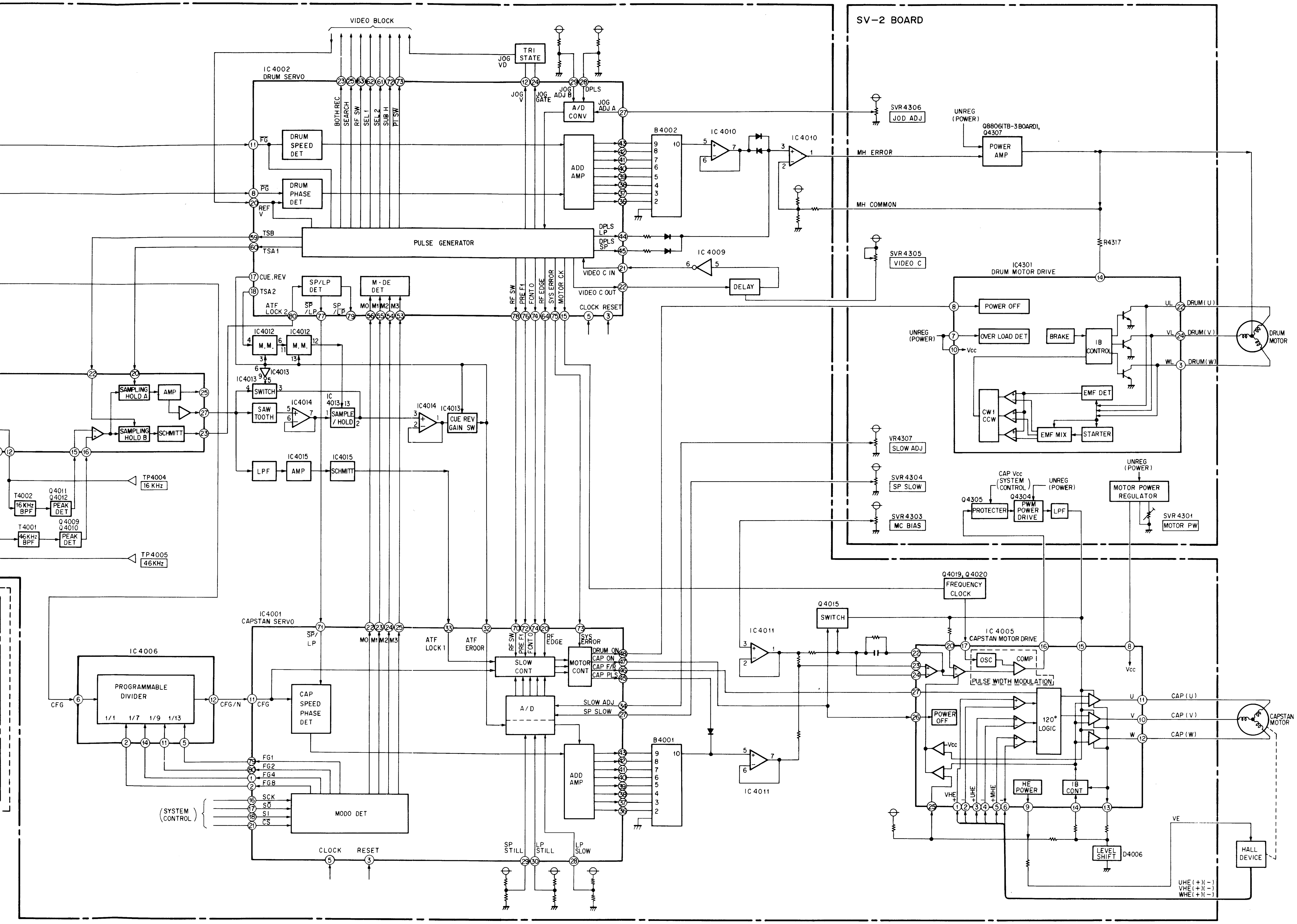

H·IC 2001
CHECK
CX20037A
PB AFM
PB AMP
FM DEMOD
LPF
NR
5dB AMP
BUFFER
AV SOCKET
EARPHONE OUT



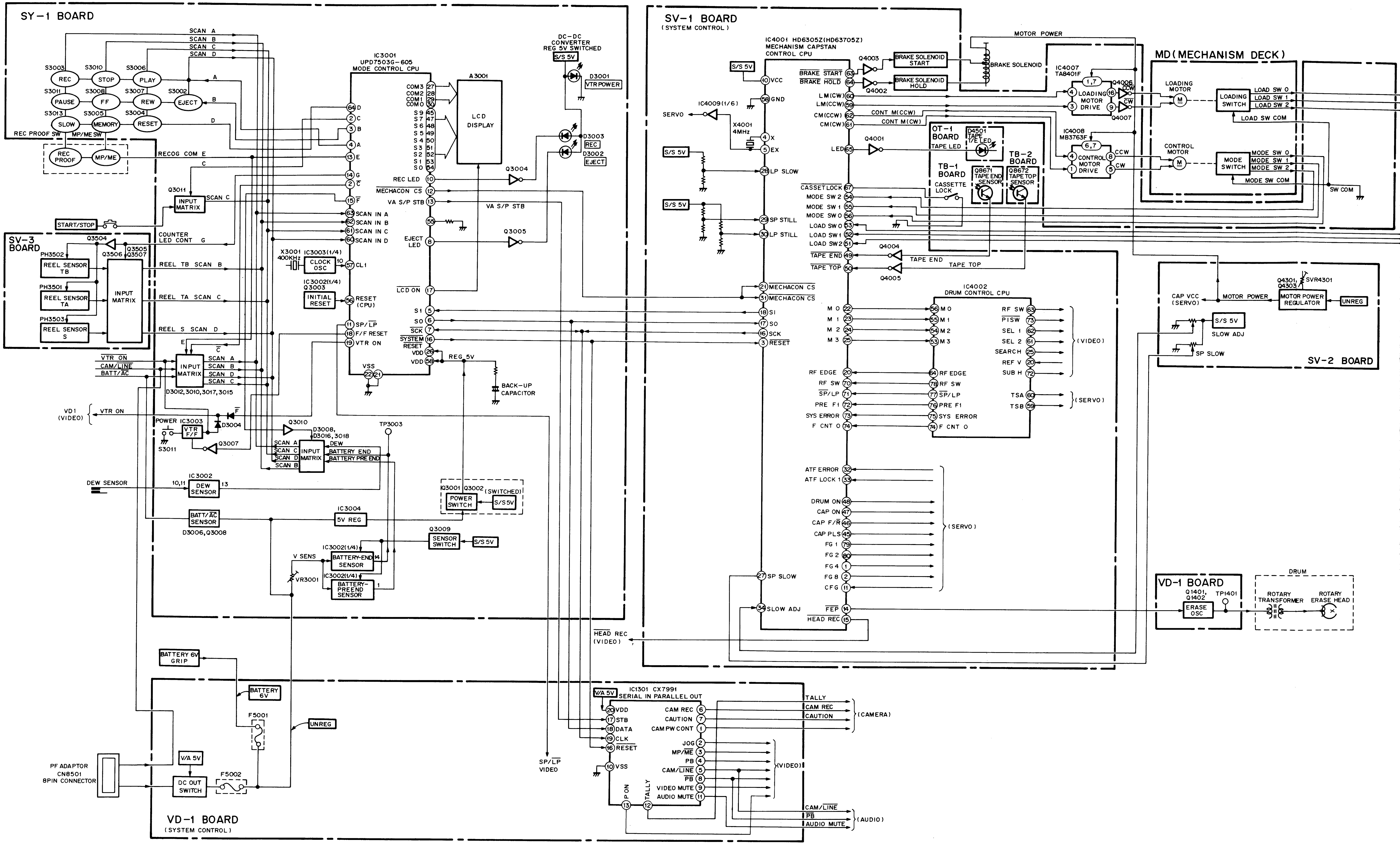
0dBs = 0.775Vrms
f = 400Hz

3-7. SERVO BLOCK DIAGRAM

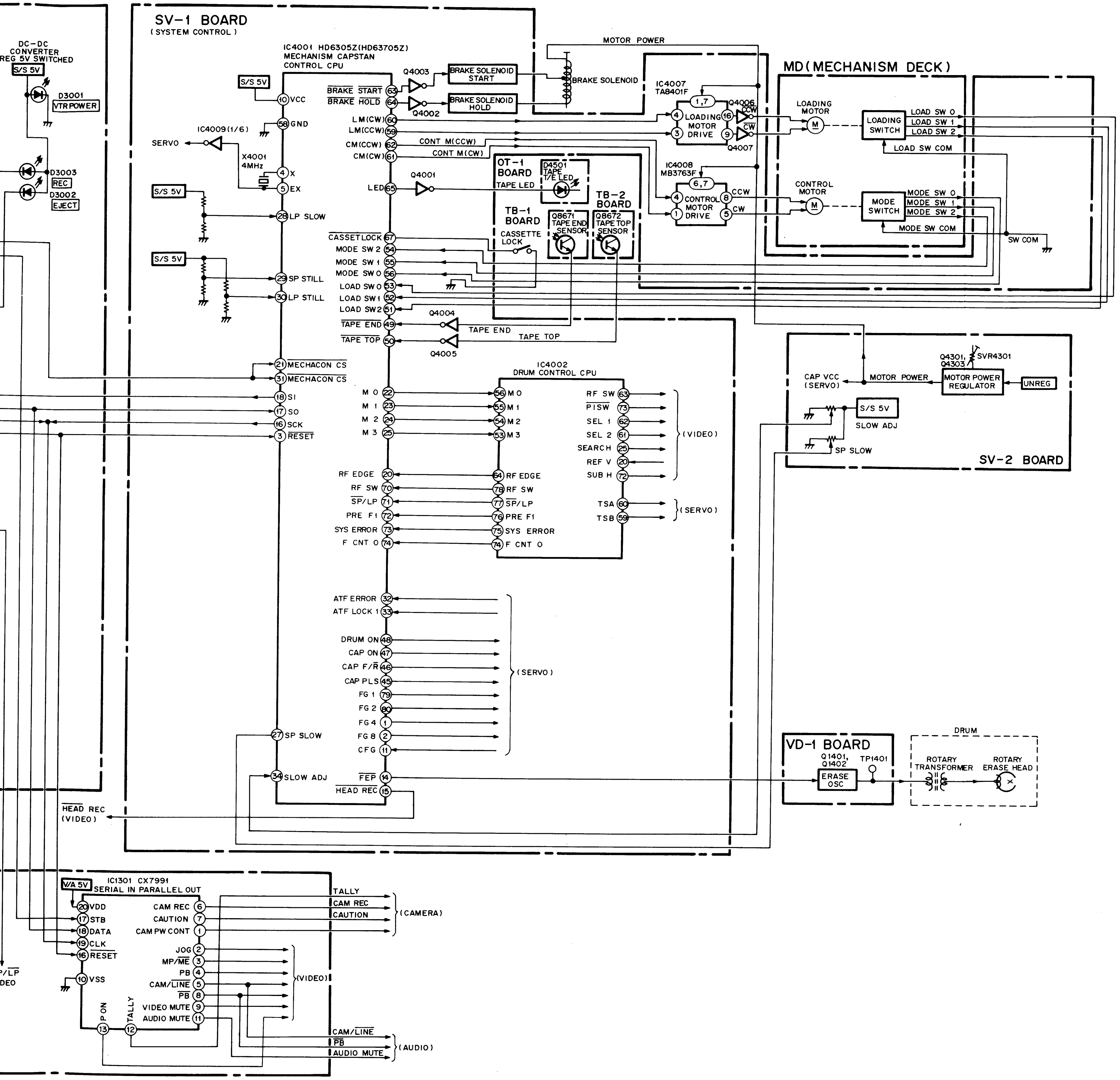

SV-1 BOARD
SV-2 BOARD
VIDEO BLOCK
IC4002
DRUM SERVO
BOTH REC
SEARCH
RF SW
SEL 1
SEL 2
SUB H
PI SW
TRI STATE
JOG VD
JOG V
JOG GATE
JOG ADJ B
DPLS
A/D CONV
JOG ADJ A
DRUM SPEED DET
DRUM PHASE DET
FG
PG
REF V
ADD AMP
B4002
IC4010
MH ERROR
MH COMMON
SVR4306
JOD ADJ
SVR4305
VIDEO C
TSB
TSA1
PULSE GENERATOR
DPLS LP
DPLS SP
IC4009
VIDEO C IN
VIDEO C OUT
DELAY
CLOCK
RESET
CUE.REV
TSA2
SP/LP DET
M·DE DET
ATF LOCK 2
SP/LP
M0 M1 M2 M3
RF SW
PRE F1
FCNT O
RF EDGE
SYS ERROR
MOTOR CK
UNREG (POWER)
DRUM
FG
PG
DFG
DCOMMON
DPG
IC4003
WAVE SHAPER
DC BIAS
WAVE SHAPER
CAPSTAN FG HEAD
CFG1
CFG2
WAVE SHAPER
IC4012
M.M.
IC4013
SWITCH
SAW TOOTH
IC4014
SAMPLE /HOLD
CUE REV GAIN SW
IC4015
LPF
AMP
SCHMITT
IC4004
ATF SERVO
SAMPLING HOLD A
AMP
SAMPLING HOLD B
SCHMITT
LPF
Q4014
BUFFER
Q4013
AMP
TP4004
16 KHz
T4002
16KHz BPF
Q4011
Q4012
PEAK DET
T4001
46KHz BPF
Q4009
Q4010
PEAK DET
TP4005
46KHz
IC1501
REC/PB AMP
VIDEO HEAD CH-A1
VIDEO HEAD CH-B
PB AMP CH-A1
PB AMP CH-B
REC AMP CH-A1
REC AMP CH-B
PB PILOT
REC Y RF
REC C RF
REC C AFM
Q1501
MIX
SSR1505
REC ATF
VP-1 BOARD
Q1002
REC ATF RF
LPF
Q1001
LPF
REF PILOT
PI SW (SYSTEM CONTROL)
IC1103
DIVIDER
1/58,50,36,40
5.86MHz OSC
X1102
REF PILOT
SEL1
SEL2
SYS RESET
(SYSTEM CONTROL)
VD-1 BOARD
VIDEO BLOCK
VR4307
SLOW ADJ
SVR4304
SP SLOW
SVR4303
MC BIAS
Q4015
SWITCH
IC4011
IC4006
PROGRAMMABLE DIVIDER
1/1 1/7 1/9 1/13
CFG
CFG/N
IC4001
CAPSTAN SERVO
SP/LP
MO M1 M2 M3
ATF LOCK1
ATF EROOR
RF SW
PRE F1
FCNT O
RF EDGE
SYS ERROR
SLOW CONT
MOTOR CONT
DRUM ON
CAP ON
CAP F/R
CAP PLS
CAP SPEED PHASE DET
A/D
SLOW ADJ
SP SLOW
ADD AMP
B4001
FG1
FG2
FG4
FG8
SCK
SO
SI
CS
(SYSTEM CONTROL)
MODO DET
CLOCK
RESET
SP STILL
LP STILL
LP SLOW


VIDEO BLOCK
TRI STATE
JOG VD
IC4002 DRUM SERVO
BOTH REC
SEARCH
RF SW
SEL 1
SEL 2
SUB H
P1 SW
JOG V
JOG GATE
JOG ADJ B
DPLS
JOG ADJ A
A/D CONV
DRUM SPEED DET
DRUM PHASE DET
FG
PG
REF V
ADD AMP
B4002
IC4010
PULSE GENERATOR
TSB
TSA1
DPLS LP
DPLS SP
IC4009
VIDEO C IN
VIDEO C OUT
DELAY
CLOCK
RESET
CUE.REV
TSA2
ATF LOCK 2
SP/LP DET
SP/LP
M-DE DET
M0 M1 M2 M3
RF SW
PRE F1
FCNT0
RF EDGE
SYS ERROR
MOTOR CK
IC4012
M.M.
IC4013
SWITCH
SAW TOOTH
IC4014
SAMPLE /HOLD
CUE REV GAIN SW
LPF
IC4015
AMP
SCHMITT
SAMPLING HOLD A
SAMPLING HOLD B
T4002
16KHz BPF
Q4011
Q4012
PEAK DET
TP4004
16KHz
T4001
46KHz BPF
Q4009
Q4010
TP4005
46KHz
SV-2 BOARD
SVR4306
JOD ADJ
UNREG (POWER)
Q8806(TB-3BOARD), Q4307
POWER AMP
MH ERROR
MH COMMON
R4317
SVR4305
VIDEO C
IC4301 DRUM MOTOR DRIVE
POWER OFF
OVER LOAD DET
BRAKE
IB CONTROL
EMF DET
CW1 CCW
EMF MIX
STARTER
Vcc
UL
VL
WL
DRUM(U)
DRUM(V)
DRUM(W)
DRUM MOTOR
VR4307
SLOW ADJ
SVR4304
SP SLOW
SVR4303
MC BIAS
CAP Vcc (SYSTEM CONTROL)
Q4305
PROTECTER
Q4304
PWM POWER DRIVE
MOTOR POWER REGULATOR
SVR4301
MOTOR PW
Q4019, Q4020
FREQUENCY CLOCK
Q4015
IC4011
IC4005 CAPSTAN MOTOR DRIVE
OSC
COMP
PULSE WIDTH MODULATION
POWER OFF
120° LOGIC
HE POWER
IB CONT
VHE
-UHE
+UHE
-MHE
+MHE
LEVEL SHIFT
D4006
VE
HALL DEVICE
UHE(+)(-)
VHE(+)(-)
WHE(+)(-)
CAP(U)
CAP(V)
CAP(W)
CAPSTAN MOTOR
IC4001 CAPSTAN SERVO
SP/LP
ATF LOCK 1
ATF EROOR
SLOW CONT
MOTOR CONT
DRUM ON
CAP ON
CAP F/R
CAP PLS
A/D
SLOW ADJ
SP SLOW
ADD AMP
B4001
IC4006
PROGRAMMABLE DIVIDER
1/1 1/7 1/9 1/13
CFG
CFG/N
CAP SPEED PHASE DET
FG1
FG2
FG4
FG8
SCK
SO
SI
CS
(SYSTEM CONTROL)
MODO DET
CLOCK
RESET
SP STILL
LP STILL
LP SLOW

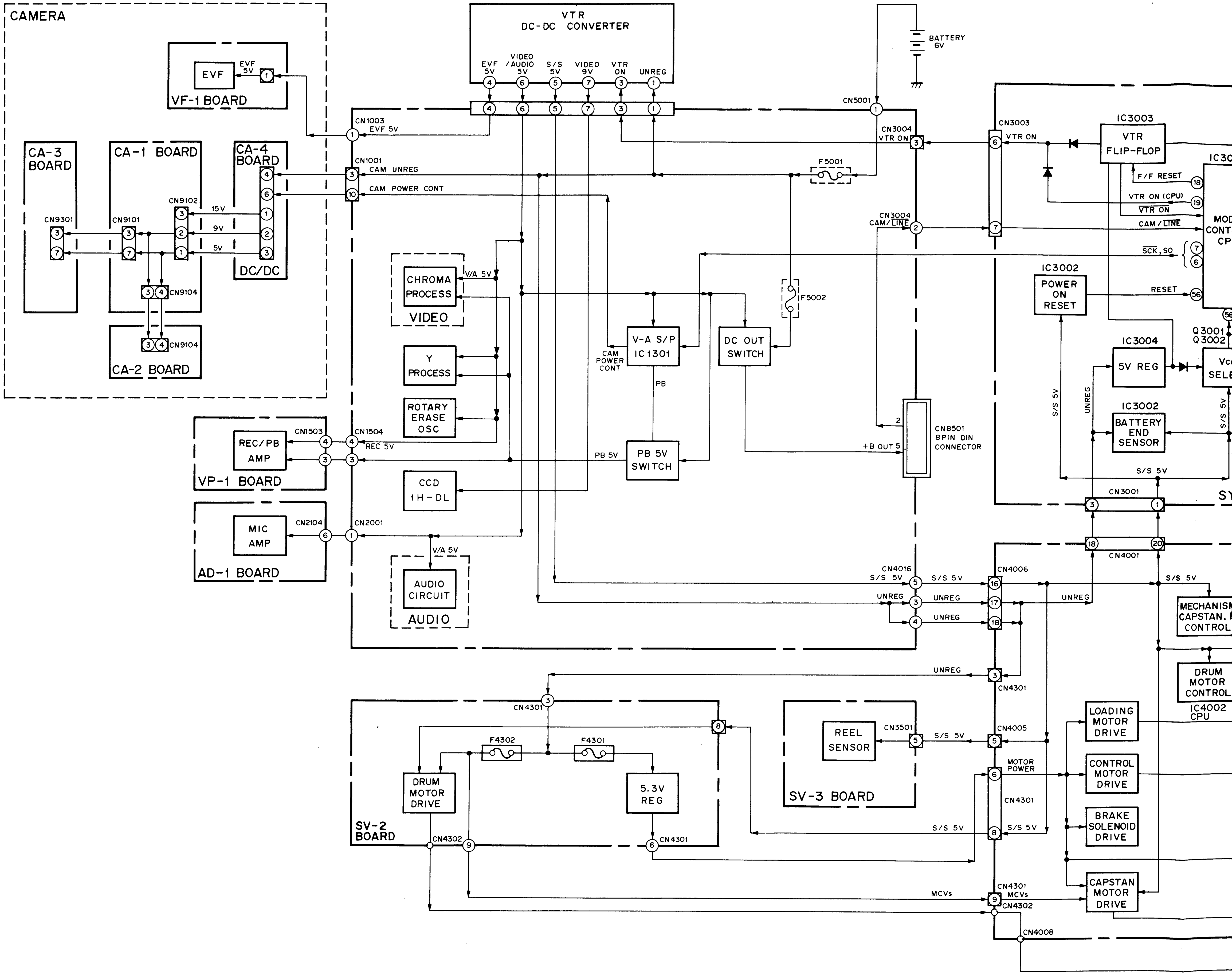
3-8. SYSTEM CONTROL BLOCK DIAGRAM

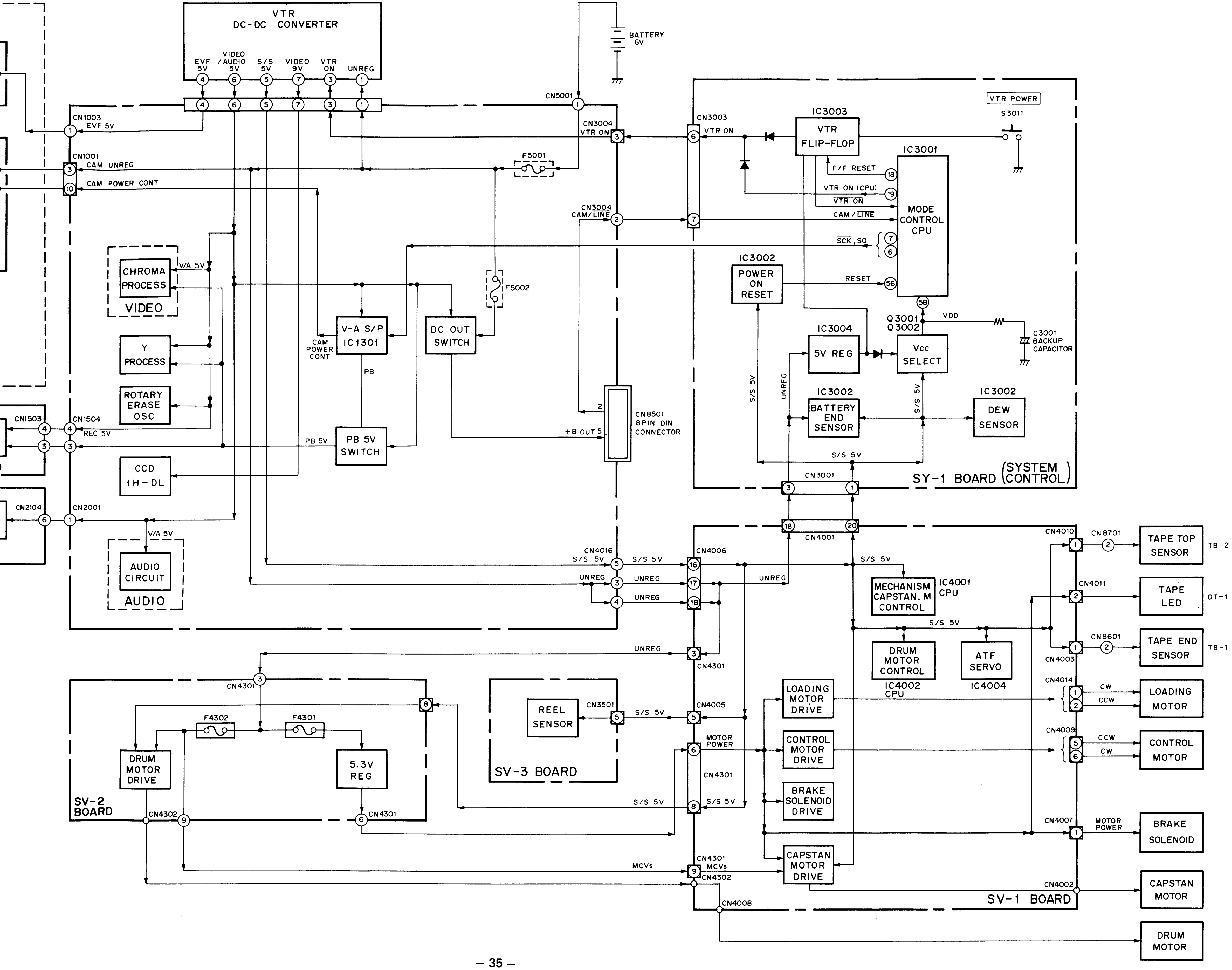


SY-1 BOARD
S3003 REC
S3010 STOP
S3006 PLAY
S3011 PAUSE
S3008 FF
S3007 REW
S3002 EJECT
S3013 SLOW
S3005 MEMORY
S3004 RESET
REC PROOF SW
MP/ME SW
REC PROOF
MP/ME
SCAN A
SCAN B
SCAN C
SCAN D
RECOG COM E
IC3001 UPD7503G-605 MODE CONTROL CPU
COM3 COM2 COM1 COM0
S9 S7 S6 S5 S4 S3 S2 S1 S0
A3001 LCD DISPLAY
REC LED
MECHACON CS
VA S/P STB
EJECT LED
LCD ON
SCAN IN A
SCAN IN B
SCAN IN C
SCAN IN D
X3001 400KHz
IC3003(1/4) CLOCK OSC
CL1
IC3002(1/4) Q3003 INITIAL RESET
RESET (CPU)
SP/LP
F/F RESET
VTR ON
VSS
VDD
REG 5V
BACK-UP CAPACITOR
SI SO SCK SYSTEM RESET
DC-DC CONVERTER REG 5V SWITCHED
S/S 5V
D3001 VTR POWER
D3003 REC
D3002 EJECT
Q3004
Q3005
Q3011
INPUT MATRIX
START/STOP
COUNTER LED CONT
SV-3 BOARD
Q3504
Q3505 Q3507
Q3506
PH3502 REEL SENSOR TB
PH3501 REEL SENSOR TA
PH3503 REEL SENSOR S
REEL TB SCAN B
REEL TA SCAN C
REEL S SCAN D
VTR ON
CAM/LINE
BATT/AC
D3012,3010,3017,3015
VD1 (VIDEO)
POWER IC3003 VTR F/F
S3011
D3004
Q3007
Q3010
D3008, D3016,3018
DEW
BATTERY END
BATTERY PRE END
TP3003
DEW SENSOR
IC3002 DEW SENSOR
BATT/AC SENSOR
D3006,Q3008
IC3004 5V REG
Q3001 Q3002 (SWITCHED) POWER SWITCH
Q3009 SENSOR SWITCH
V SENS
VR3001
IC3002(1/4) BATTERY-END SENSOR
IC3002(1/4) BATTERY-PREEND SENSOR
BATTERY 6V GRIP
BATTERY 6V
F5001
UNREG
V/A 5V
F5002
DC OUT SWITCH
PF ADAPTOR CN8501 8PIN CONNECTOR
VD-1 BOARD (SYSTEM CONTROL)
SP/LP VIDEO
HEAD REC (VIDEO)
IC1301 CX7991 SERIAL IN PARALLEL OUT
VDD STB DATA CLK RESET VSS
CAM REC
CAUTION
CAM PW CONT
JOG
MP/ME
PB
CAM/LINE
VIDEO MUTE
AUDIO MUTE
P ON
TALLY
(CAMERA)
(VIDEO)
(AUDIO)
SV-1 BOARD (SYSTEM CONTROL)
IC4001 HD6305Z(HD63705Z) MECHANISM CAPSTAN CONTROL CPU
VCC
GND
IC4009(1/6)
SERVO
X4001 4MHz
X EX
LP SLOW
SP STILL
LP STILL
BRAKE START
BRAKE HOLD
Q4003
Q4002
BRAKE SOLENOID START
BRAKE SOLENOID HOLD
BRAKE SOLENOID
MOTOR POWER
LM(CW) LM(CCW) CM(CCW) CM(CW)
CONT M(CCW)
CONT M(CW)
LED
Q4001
OT-1 BOARD
D4501 TAPE LED
TB-1 BOARD
CASSETTE LOCK
Q8671 TAPE END SENSOR
TB-2 BOARD
Q8672 TAPE TOP SENSOR
CASSET LOCK
MODE SW 2 MODE SW 1 MODE SW 0
LOAD SW 0 LOAD SW 1 LOAD SW 2
TAPE END
TAPE TOP
Q4004
Q4005
MECHACON CS
IC4007 TA8401F
LOADING MOTOR DRIVE
Q4006 Q4007
IC4008 MB3763F
CONTROL MOTOR DRIVE
CCW CW
MD(MECHANISM DECK)
LOADING MOTOR
LOADING SWITCH
LOAD SW COM
CONTROL MOTOR
MODE SWITCH
MODE SW COM
SW COM
IC4002 DRUM CONTROL CPU
M 0 M 1 M 2 M 3
RF SW PISW SEL 1 SEL 2 SEARCH REF V SUB H
RF EDGE RF SW SP/LP PRE F1 SYS ERROR F CNT 0
TSA TSB
(SERVO)
ATF ERROR ATF LOCK 1
DRUM ON CAP ON CAP F/R CAP PLS FG 1 FG 2 FG 4 FG 8 CFG
SP SLOW
SLOW ADJ
FEP
HEAD REC
CAP VCC (SERVO)
MOTOR POWER
Q4301, Q4303 MOTOR POWER REGULATOR
SVR4301
UNREG
SLOW ADJ
SP SLOW
SV-2 BOARD
VD-1 BOARD
Q1401, Q1402 ERASE OSC
TP1401
DRUM
ROTARY TRANSFORMER
ROTARY ERASE HEAD


SV-1 BOARD
(SYSTEM CONTROL)
IC4001 HD6305Z(HD63705Z)
MECHANISM CAPSTAN
CONTROL CPU
S/S 5V
VCC
GND
IC4009(1/6)
SERVO
X4001
4MHz
X
EX
LP SLOW
SP STILL
LP STILL
MECHACON CS
MECHACON CS
SI
SO
SCK
RESET
SP SLOW
SLOW ADJ
BRAKE START
BRAKE HOLD
LM(CW)
LM(CCW)
CM(CCW)
CM(CW)
LED
CASSETLOCK
MODE SW 2
MODE SW 1
MODE SW 0
LOAD SW 0
LOAD SW 1
LOAD SW 2
TAPE END
TAPE TOP
M 0
M 1
M 2
M 3
RF EDGE
RF SW
SP/LP
PRE F1
SYS ERROR
F CNT 0
ATF ERROR
ATF LOCK 1
DRUM ON
CAP ON
CAP F/R
CAP PLS
FG 1
FG 2
FG 4
FG 8
CFG
FEP
HEAD REC
Q4003
Q4002
BRAKE SOLENOID START
BRAKE SOLENOID HOLD
MOTOR POWER
BRAKE SOLENOID
CONT M(CCW)
CONT M(CW)
Q4001
OT-1 BOARD
D4501 TAPE T/E LED
TAPE LED
TB-1 BOARD
CASSETTE LOCK
Q8671 TAPE END SENSOR
TB-2 BOARD
Q8672 TAPE TOP SENSOR
Q4004
Q4005
TAPE END
TAPE TOP
IC4007 TA8401F
1,7
LOADING MOTOR DRIVE
Q4006
Q4007
CCW
CW
IC4008 MB3763F
6,7
CONTROL MOTOR DRIVE
MD(MECHANISM DECK)
LOADING MOTOR
M
LOADING SWITCH
LOAD SW 0
LOAD SW 1
LOAD SW 2
LOAD SW COM
CONTROL MOTOR
MODE SWITCH
MODE SW 0
MODE SW 1
MODE SW 2
MODE SW COM
SW COM
IC4002
DRUM CONTROL CPU
M 0
M 1
M 2
M 3
RF SW
PISW
SEL 1
SEL 2
SEARCH
REF V
SUB H
(VIDEO)
TSA
TSB
(SERVO)
RF EDGE
RF SW
SP/LP
PRE F1
SYS ERROR
F CNT 0
(SERVO)
SV-2 BOARD
CAP VCC (SERVO)
MOTOR POWER
Q4301, Q4303
SVR4301
MOTOR POWER REGULATOR
UNREG
S/S 5V
SLOW ADJ
SP SLOW
VD-1 BOARD
Q1401, Q1402
TP1401
ERASE OSC
DRUM
ROTARY TRANSFORMER
ROTARY ERASE HEAD
HEAD REC (VIDEO)
DC-DC CONVERTER
REG 5V SWITCHED
S/S 5V
D3001
VTR POWER
D3003
REC
D3002
EJECT
IC1301 CX7991
SERIAL IN PARALLEL OUT
VA 5V
VDD
STB
DATA
CLK
RESET
VSS
P ON
TALLY
CAM REC
CAUTION
CAM PW CONT
JOG
MP/ME
PB
CAM/LINE
PB
VIDEO MUTE
AUDIO MUTE
TALLY
CAM REC
CAUTION
(CAMERA)
(VIDEO)
CAM/LINE
PB
AUDIO MUTE
(AUDIO)
P/LP
DEO

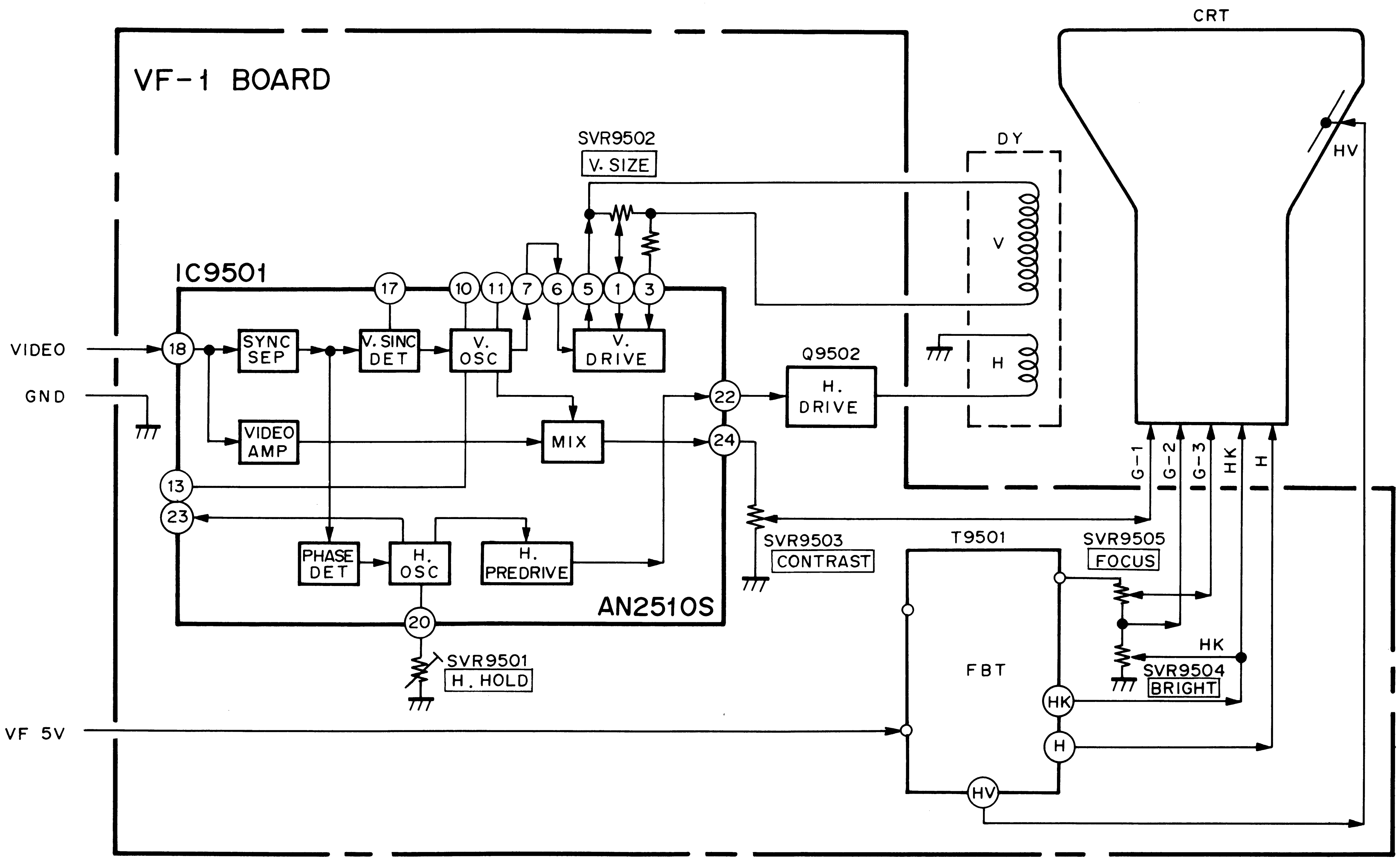
3-9. POWER SUPPLY BLOCK DIAGRAM


CAMERA
EVF
EVF 5V
VF-1 BOARD
CA-3 BOARD
CA-1 BOARD
CA-4 BOARD
DC/DC
CN9301
CN9101
CN9102
15V
9V
5V
CN9104
CA-2 BOARD
VTR DC-DC CONVERTER
EVF 5V
VIDEO /AUDIO 5V
S/S 5V
VIDEO 9V
VTR ON
UNREG
BATTERY 6V
CN5001
CN1003
EVF 5V
CN1001
CAM UNREG
CAM POWER CONT
F5001
CN3004 VTR ON
CN3004 CAM/LINE
CHROMA PROCESS
V/A 5V
VIDEO
Y PROCESS
ROTARY ERASE OSC
CAM POWER CONT
V-A S/P IC1301
DC OUT SWITCH
F5002
PB
PB 5V
PB 5V SWITCH
CCD 1H-DL
+B OUT 5
2
CN8501 8PIN DIN CONNECTOR
REC/PB AMP
CN1503
CN1504
REC 5V
VP-1 BOARD
MIC AMP
CN2104
CN2001
AD-1 BOARD
V/A 5V
AUDIO CIRCUIT
AUDIO
CN4016 S/S 5V
UNREG
S/S 5V
UNREG
UNREG
CN3003
VTR ON
IC3003
VTR FLIP-FLOP
F/F RESET
VTR ON (CPU)
VTR ON
CAM/LINE
SCK, SO
IC30
MOD CONT CP
IC3002
POWER ON RESET
RESET
IC3004
5V REG
Q3001 Q3002
Vcc SELE
IC3002
BATTERY END SENSOR
S/S 5V
UNREG
S/S 5V
S/S 5V
CN3001
SY
CN4001
CN4006
UNREG
S/S 5V
MECHANISM CAPSTAN. CONTROL
DRUM MOTOR CONTROL
IC4002 CPU
UNREG
CN4301
CN4301
SV-2 BOARD
F4302
F4301
DRUM MOTOR DRIVE
5.3V REG
CN4302
CN4301
REEL SENSOR
CN3501
S/S 5V
SV-3 BOARD
CN4005
MOTOR POWER
CN4301
S/S 5V
S/S 5V
LOADING MOTOR DRIVE
CONTROL MOTOR DRIVE
BRAKE SOLENOID DRIVE
CAPSTAN MOTOR DRIVE
MCVs
CN4301 MCVs
CN4302
CN4008



VTR DC-DC CONVERTER
EVF 5V
VIDEO /AUDIO 5V
S/S 5V
VIDEO 9V
VTR ON
UNREG
BATTERY 6V
CN5001
CN1003
EVF 5V
CN1001
CAM UNREG
CAM POWER CONT
CN3004 VTR ON
F5001
CN3004 CAM/LINE
CHROMA PROCESS
V/A 5V
VIDEO
Y PROCESS
ROTARY ERASE OSC
CCD 1H-DL
V-A S/P IC1301
CAM POWER CONT
PB
DC OUT SWITCH
F5002
PB 5V SWITCH
PB 5V
CN1503
CN1504
REC 5V
CN2104
CN2001
V/A 5V
AUDIO CIRCUIT
AUDIO
CN8501 8PIN DIN CONNECTOR
+B OUT 5
2
CN4016 S/S 5V
S/S 5V
UNREG
UNREG
UNREG
CN3003
VTR ON
IC3003
VTR FLIP-FLOP
VTR POWER
S3011
IC3001
F/F RESET
VTR ON (CPU)
VTR ON
CAM / LINE
MODE CONTROL CPU
SCK, SO
IC3002
POWER ON RESET
RESET
Q3001 Q3002
VDD
C3001 BACKUP CAPACITOR
IC3004
5V REG
Vcc SELECT
S/S 5V
UNREG
S/S 5V
IC3002
BATTERY END SENSOR
IC3002
DEW SENSOR
S/S 5V
CN3001
SY-1 BOARD (SYSTEM CONTROL)
CN4001
CN4006
S/S 5V
UNREG
MECHANISM CAPSTAN. M CONTROL
IC4001 CPU
S/S 5V
DRUM MOTOR CONTROL
IC4002 CPU
ATF SERVO
IC4004
CN4010
CN8701
TAPE TOP SENSOR
TB-2
CN4011
TAPE LED
OT-1
CN8601
CN4003
TAPE END SENSOR
TB-1
CN4014
CW
CCW
LOADING MOTOR
CN4009
CCW
CW
CONTROL MOTOR
CN4007
MOTOR POWER
BRAKE SOLENOID
CN4002
CAPSTAN MOTOR
DRUM MOTOR
UNREG
CN4301
CN4301
SV-2 BOARD
DRUM MOTOR DRIVE
F4302
F4301
5.3V REG
CN4302
CN4301
REEL SENSOR
CN3501
S/S 5V
SV-3 BOARD
CN4005
MOTOR POWER
CN4301
S/S 5V
S/S 5V
LOADING MOTOR DRIVE
CONTROL MOTOR DRIVE
BRAKE SOLENOID DRIVE
CAPSTAN MOTOR DRIVE
MCVs
CN4301 MCVs CN4302
CN4008
SV-1 BOARD

3-10. VIEWFINDER BLOCK DIAGRAM


CRT
VF-1 BOARD
SVR9502
V. SIZE
DY
V
HV
IC9501
17
10
11
7
6
5
1
3
VIDEO
18
SYNC SEP
V. SINC DET
V. OSC
V. DRIVE
Q9502
H
GND
22
H. DRIVE
VIDEO AMP
MIX
24
13
G-1
G-2
G-3
HK
H
23
SVR9503
CONTRAST
T9501
SVR9505
FOCUS
PHASE DET
H. OSC
H. PREDRIVE
AN2510S
20
HK
SVR9501
H. HOLD
SVR9504
BRIGHT
FBT
HK
H
VF 5V
HV

39

4. ADJUSTMENT

1. CAMERA ADJUSTMENT

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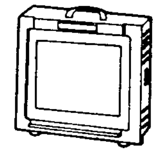
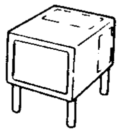
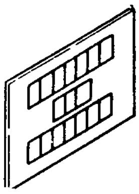
1. CAMERA ADJUSTMENT

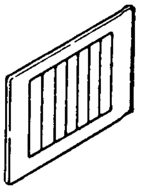
1-1. LIST OF SERVICING JIGS

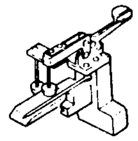
Ref.No.	Name	Part Code	Use
J-1	Color viewer 5100^{O}K	VJ8-0007	White balance adjustment
J-2	Halogen viewer 3100^{O}K	VJ8-0019	White balance adjustment
J-3	Gray scale	VJ8-0010	Vertical aperture, AGC level and Iris adjustments
J-4	Color bar chart	VJ8-0009	Chroma DET, Chroma balance and Chroma phase adjustments
J-5	Camera block fixing jig	VJ8-0018	For fixing camera block
J-6	Camera extension cord	VJ8-0017	For extending camera block
J-7	Socket extractor	VJ8-0005	For extracting socket
J-8	CA3 Extension Cord	VJ8-0021	Camera Block Adjustment
J-9	CA4 Extension Cord (1)	VJ8-0022	Camera Block Adjustment
J-10	CA4 Extension Cord (2)	VJ8-0023	Camera Block Adjustment
J-11	Pan Head	VJ8-0020	To fix Camera Block

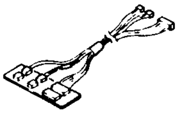
J-1


J-2


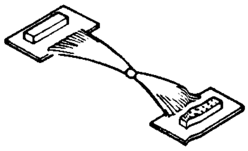
J-3


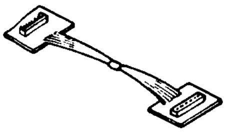
J-4


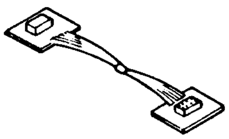
J-5


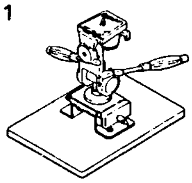
J-6


J-7

J-8


J-9


J-10


J-11


1-2. EQUIPMENTS USED

1. Vectorscope
2. Oscilloscope
3. Color monitor
4. Digital voltmeter
5. ND8 x 2, ND70% filter
6. RF adaptor
7. Temperature gauge

1-3. ADJUSTMENT ORDER

1. OFD Voltage Adjustment
2. OB Clamp Adjustment
3. Iris Level Adjustment
4. Vertical Aperture Balance Adjustment
5. AGC·SYNC Level Adjustment
6. Chroma DET Adjustment
7. Chroma Balance Adjustment
8. PLL Lock Voltage Adjustment
9. ChromaPhaseAdjustment(Temporary Adjustment)
10. 5100^{O}K Standard White Balance Adjustment
11. Auto Tracking 3200^{O}K Standard White Balance Adjustment
12. Chroma Phase Adjustment
13. Low Illumination Detection Checking
14. High Illumination Detection Adjustment

Note: All adjustments from 1 through 13 must be made.

Adjustment with vectorscope is to be made at the center of vector's lumi-nescent spot.

1-4. SET-UP AND CONNECTION DIAGRAM

Refer to 2. DISASSEMBLY to remove the cabinets and boards.

1) Place the camera section on jig J-5 as shown in Fig. 1-1.
2) Set up the camera section and color viewer as shown in Fig. 1-2.

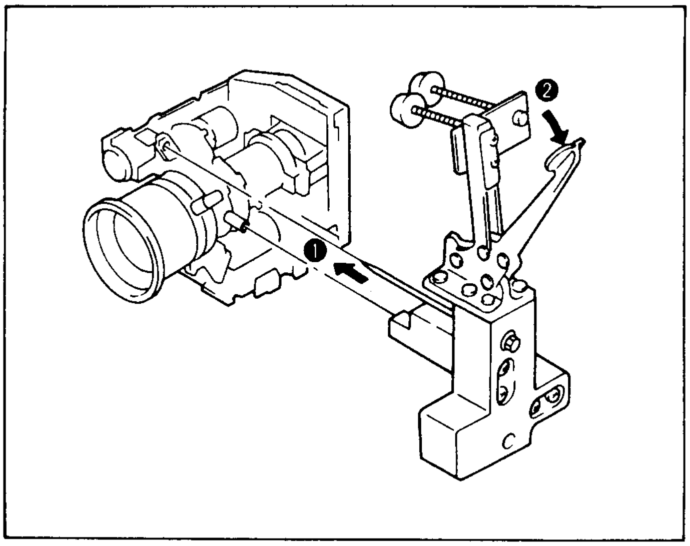


Fig. 1-1

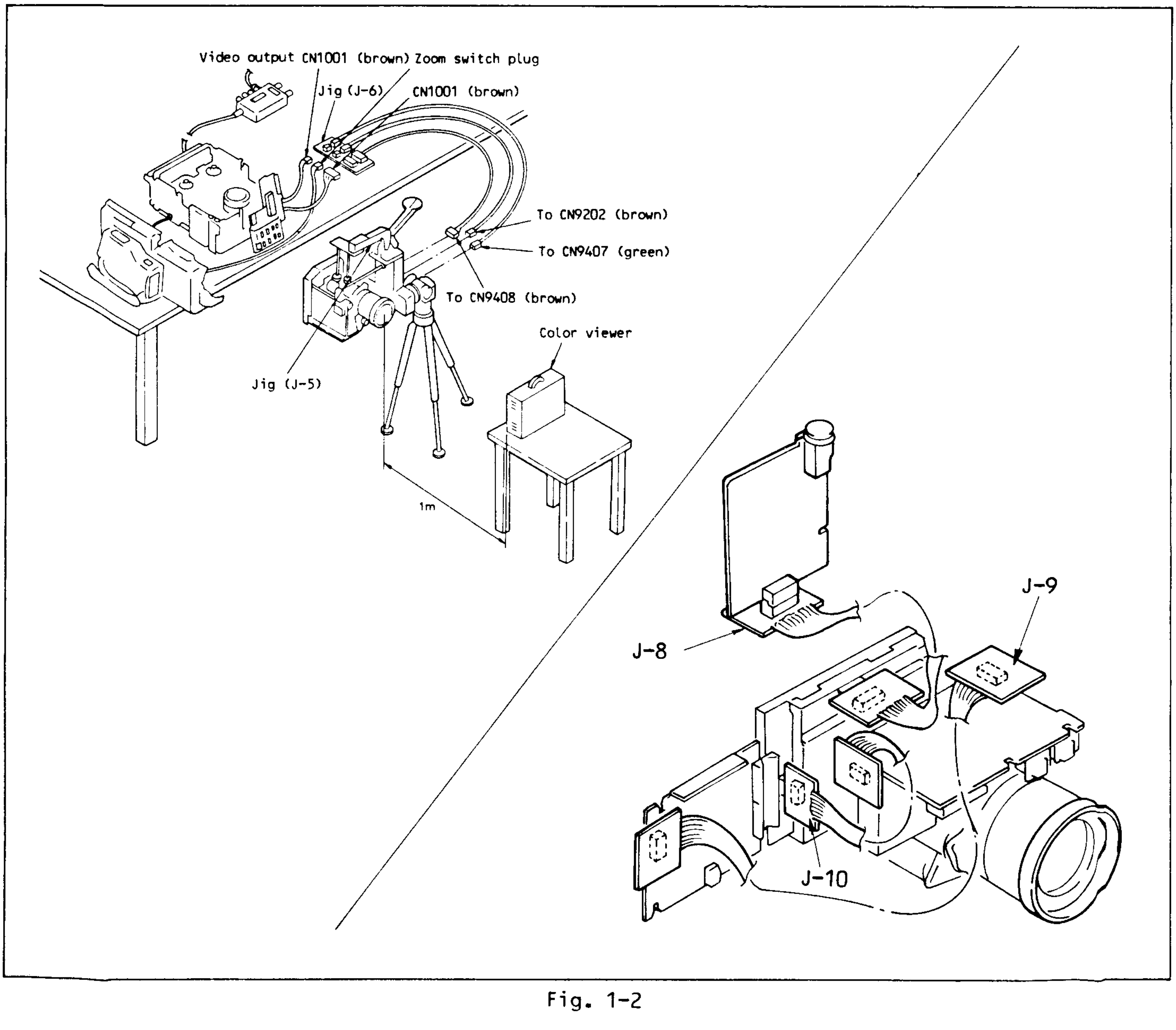
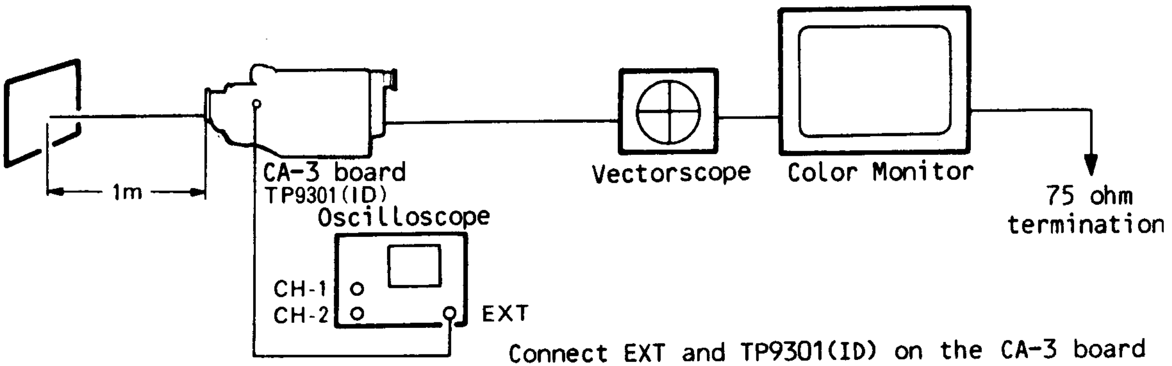

Video output CN1001 (brown)
Zoom switch plug
Jig (J-6)
CN1001 (brown)
To CN9202 (brown)
To CN9407 (green)
To CN9408 (brown)
Color viewer
Jig (J-5)
1m
J-8
J-9
J-10

Fig. 1-2

3) Connection of Equipment


1m
CA-3 board
TP9301(ID)
Oscilloscope
CH-1
CH-2
EXT
Vectorscope
Color Monitor
75 ohm termination

Connect EXT and TP9301(ID) on the CA-3 board and synchronize when an oscilloscope is used for measurement unless otherwise specified.

Fig. 1-3

1-5. PRECAUTIONS

1) Adjust the picture frame as shown in Fig. 1-4 when using a color bar chart for adjustment. (Standard picture frame)

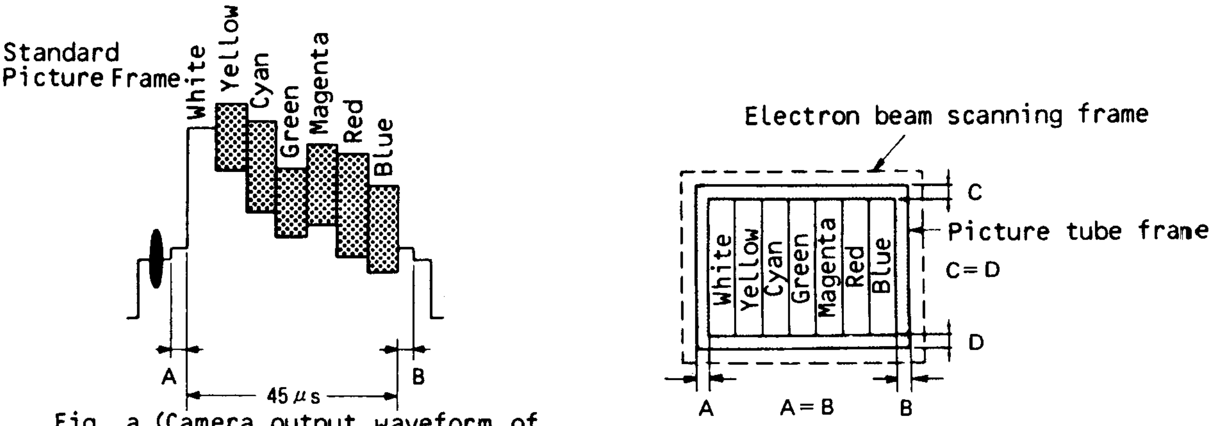

Standard Picture Frame
White
Yellow
Cyan
Green
Magenta
Red
Blue
A
B
45 µs
Electron beam scanning frame
C
Picture tube frame
C=D
D
White
Yellow
Cyan
Green
Magenta
Red
Blue
A
A=B
B

Fig. a (Camera output waveform of TP9301 on CA-3 board)

Fig. b (Picture of TV monitor screen)

Adjust the zooming of camera and the tripod stand so that the picture of monitor TV can be obtained.

Fig. 1-4

1-6. OFD VOLTAGE ADJUSTMENT

Digital voltmeter: Pin ⑩ of ICX-031
(Adjustment Method)
Using SVR9101, adjust so that the voltage at ICX-031 is the value obtained by substituting the following for the symbol:

9 ...... 9V
A 10V
B 11V
C 12V
D 13V
E 14V
F 15V

0 ...... 0.0V
1 ...... 0.1V
2 ...... 0.2V
3 ...... 0.3V
↓
9 ...... 0.9V

For example, if the symbol is C3, the adjustment value will be as follows:

12 (C) + 0.3 (3) = 12.3V

The tolerance is ±0.1V.

1-7. OB CLAMP ADJUSTMENT

Oscilloscope: RF adaptor (VIDEO OUT)
Settings:
① Focus SW → Manual ("MAN")
② Iris SW → Backlight ("BACK LIGHT")
③ Ageing for at least 10 minutes
④ Attach lens cap.
⑤ Set the chroma component of the video output to minimum using SVR9293.

(Adjustment Method)
Adjust to 50±5mV IRE using SVR9201.
The level is read at the middle of the signal. When there is a high noise level, the average level of the signal is read.

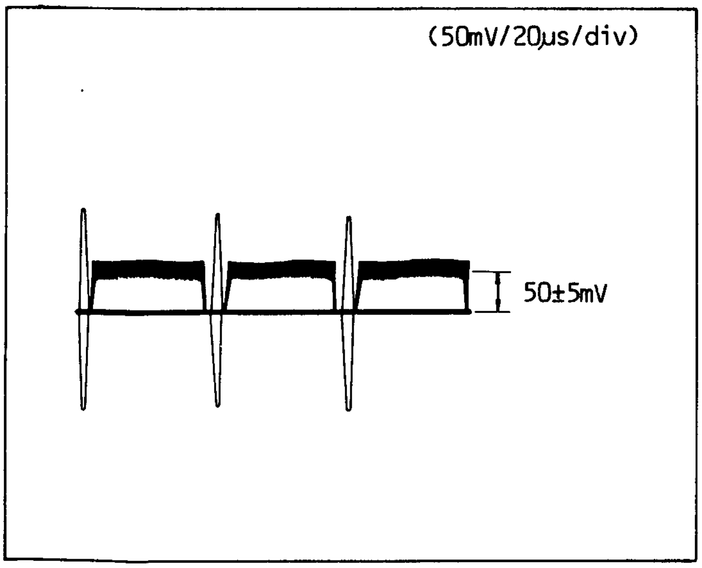


Fig. 1-5.

1-8. IRIS LEVEL ADJUSTMENT

Oscilloscope: TP9401
Settings:
① Focus SW → Manual ("MAN")
② Iris SW → Normal ("NORM")
③ Ageing for at least 10 minutes
④ The gray scale is placed in the color viewer 5100°K and this is shot from about 1 meter away. The gray scale width should be 35 ± 0.5 µsec with no slanting or shifting on the screen.

(Adjustment Method)
Adjust to 400 ± 20mV using SVR9401.

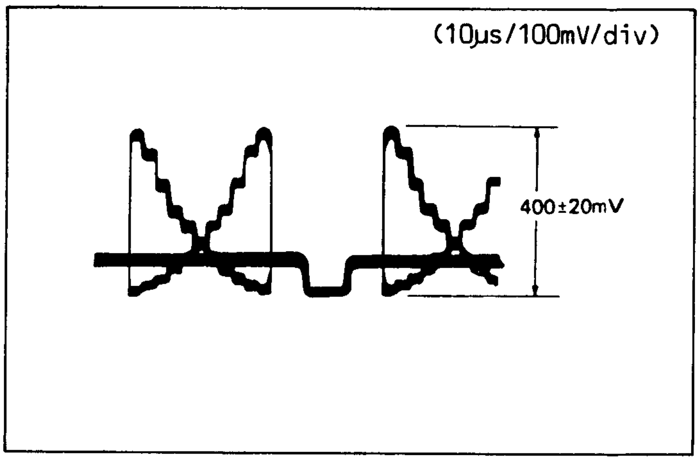


Fig. 1-6.

1-9. VERTICAL APERTURE ADJUSTMENT

Oscilloscope: TP9206
Settings:
① Focus SW → Manual ("MAN")
② Iris SW → Normal ("NORM")
③ Ageing for at least 10 minutes
④ The gray scale is placed in the color viewer 5100°K and this is shot from about 1 meter away. The gray scale width should be 35 ± 0.5 µsec with no slanting or shifting on the screen.

(Adjustment Method)
Using SVR9296 adjust so that the waveform is minimum as shown in Fig. 1-7.

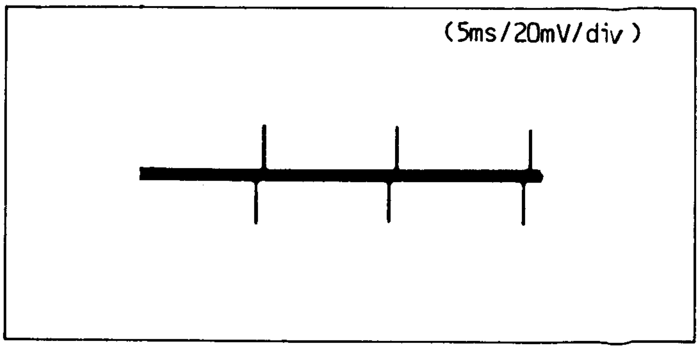


Fig. 1-7

1-10. AGC·SYNC LEVEL ADJUSTMENT

Oscilloscope: RF adaptor (VIDEO OUT)

Settings:
① Focus SW → Manual ("MAN")
② Iris SW → Normal ("NORM")
③ Ageing for at least 10 minutes
④ The gray scale is placed in the color viewer 5100°K and this is shot from about 1 meter away.
⑤ Set the chroma component to minimum using SVR9293.

(Adjustment Method)

1. First, shooting the gray scale with widest-angle (f=9mm), maintain Y-signal at saturated condition. Then, set the signal level to 7.0 div by using gain VR of oscilloscope.
   (Do not touch the gain VR hereafter.)

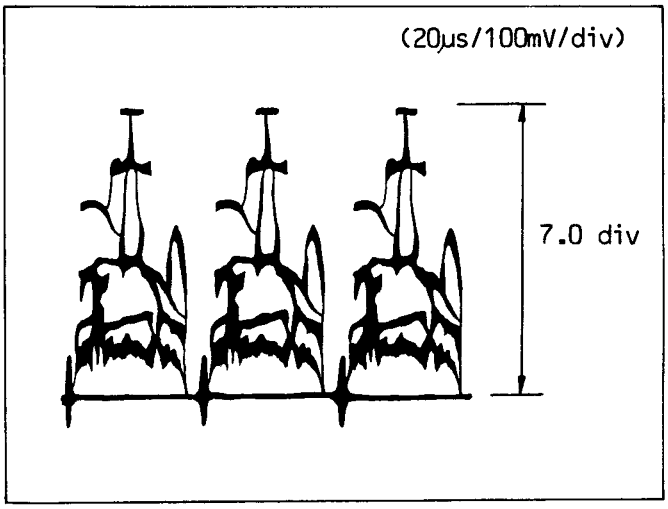


Fig. 1-8.

2. Adjust SYNC level to 2.70±0.05 div by using SVR9297.

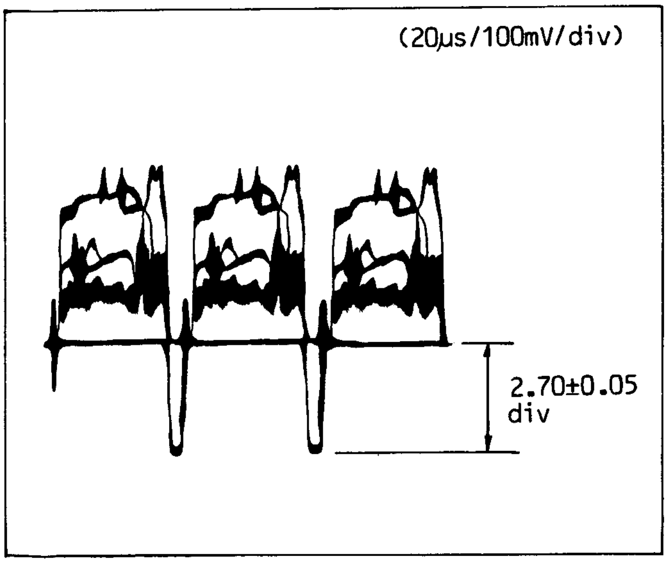


Fig. 1-9.

③ Observing the monitor picture, adjust zoom and slant of the camera to get the gray scale just size of the picture plane, and adjust Y-signal level to 6.3±0.1 div.

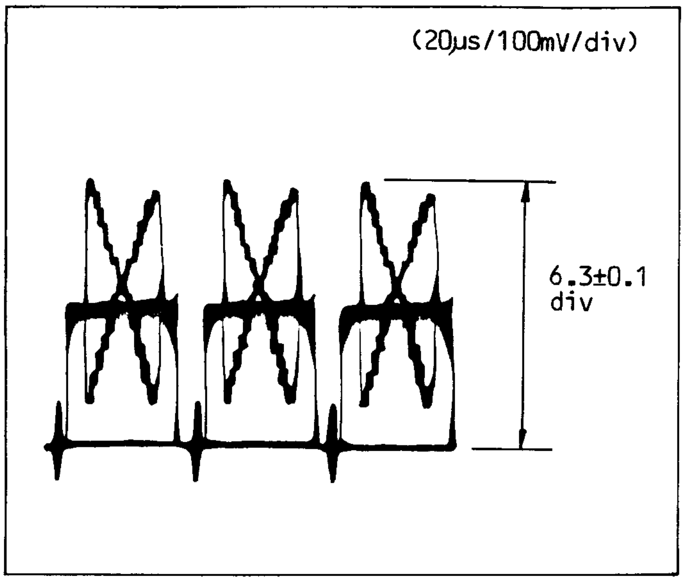


Fig. 1-10.

1-11. CHROMA DET ADJUSTMENT

Oscilloscope: TP9309

Settings:
① Focus SW → Manual ("MAN")
② Iris SW → Normal ("NORM")
③ Ageing for at least 10 minutes
④ The color bar chart is placed in the color viewer 5100°K and this is shot from about 1 meter away. The color bar width should be about 40 µsec with no slanting or shifting on the screen.
⑤ Connect the 100pF capacitor between probe and GND.

(Adjustment Method)

Using SVR9303 adjust until the OB and BLK levels are equal with no staggering as shown in Fig. 1-11. At this time, the waveform should be roughly maximum.

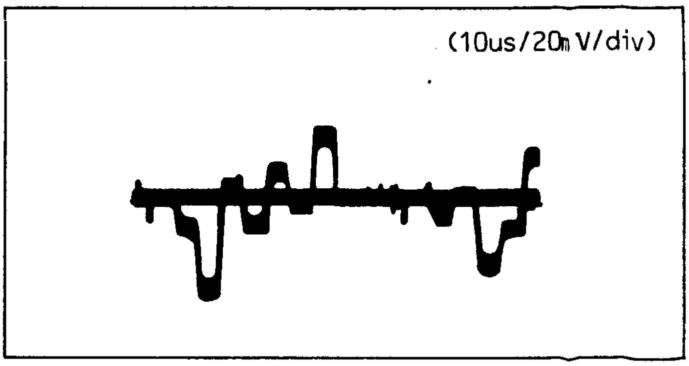


Fig. 1-11.

1-12. CHROMA BALANCE ADJUSTMENT

Oscilloscope: TP9307

Settings:
① Focus SW → Manual ("MAN")
② Iris SW → Normal ("NORM")
③ Ageing for at least 10 minutes
④ Shoot the colour viewer 5100°K equipped with colour-bar chart from about one meter apart. The colour-bar width should be about 50usec with no large slant or shift against the picture plane.
⑤ Adjust the TP9307 output to roughly 100 mVp-p using SVR9301.

(Adjustment Method)
Using SVR9306, adjust so that the waveform level does not change at the 1H cycle as shown in Fig. 1-12.

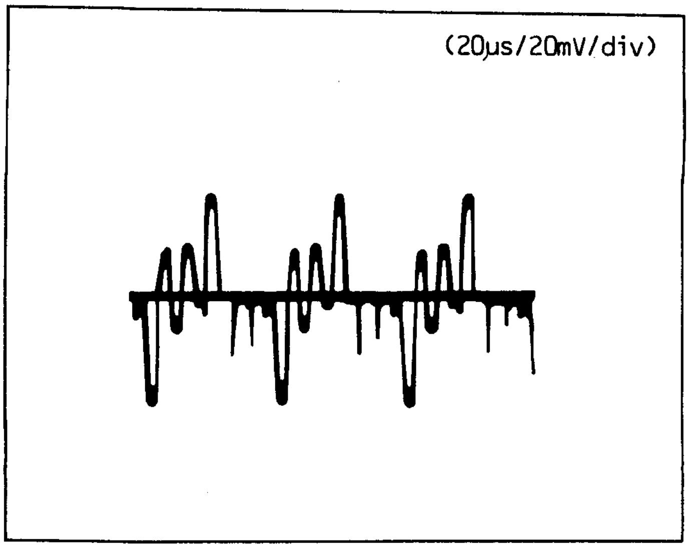


Fig. 1-12.

1-13. PLL LOCK VOLTAGE ADJUSTMENT

Digital voltmeter: TP9101

Setting:
① Ageing for at least 10 minutes

(Adjustment Method)
Adjust to 2.40±0.02V using VC9101.

1-14. CHROMA PHASE ADJUSTMENT
(Temporary Adjustment)

Vectorscope: RF adaptor (VIDEO OUT)

Gain VR of vectorscope: Preset
Line selector switch: "BOTH" for Adjustment 4 and 5. "+V" position for the rest.

Settings:
① Focus SW → Manual ("MAN")
② Iris SW → Normal ("NORM")
③ Ageing for at least 10 minutes
④ White Balance → ☀ (SUNLIGHT)
⑤ The color bar chart is placed in the color viewer 5100°K and this is shot from about 1 meter away. The color bar width should be about 50 ± 0.5 μsec with no slanting or shifting on the screen.
⑥ Set the chroma component of the video output to maximum using SVR9293.
⑦ Adjust the voltage at TP9321 to at least 4V using SVR9321.

(Adjustment Method)

1. Adjust the waveform level of TP9308 to approximately 65mVp-p using SVR9302 and the waveform level of TP9307 to approximately 65mVp-p using SVR9301.
2. Use SVR9308 and SVR9309 to position the black vector at the origin of the vector scope.
3. Using SVR9313 and SVR9314, overlap the white vector over the black vector.
4. Set the line selector switch to "BOTH". Using SVR9322 "BS.LEVEL", adjust the average of the two burst to 75%. At the same time, symmetrize the two burst against B-Y axis by the phase VR of the vectorscope.
5. Using SVR9307, symmetrize the vectors of yellow, red, and blue respectively against B-Y axis.
6. Set the line selector switch to "+V". Using SVR9301, SVR9302, SVR9311, and SVR9323, adjust the levels and phases of red and yellow vectors.
7. Repeat steps 2 through 6 until red vector position have been adjusted to "a" and yellow vector position to "b" as shown in Fig. 1-13.
8. Using SVR9293, set the yellow vector position to "d" as shown in Fig. 1-13.
9. Use SVR9301, SVR9302, SVR9311 and SVR9323 to position the red vector at "a" and blue vector at "b" as shown in Fig. 1-14.

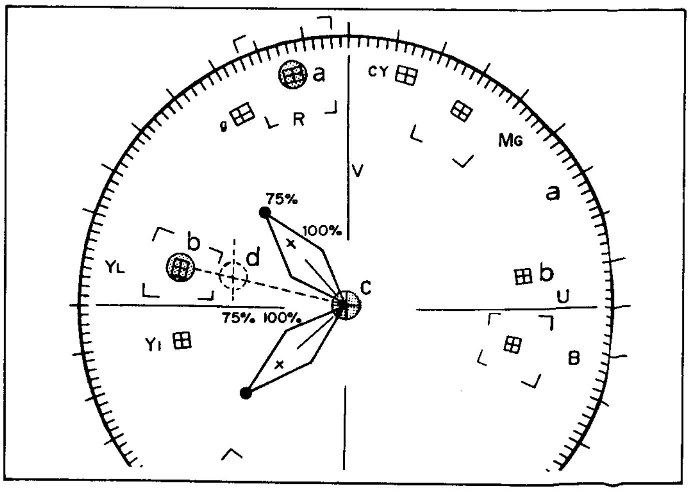


Fig. 1-13.

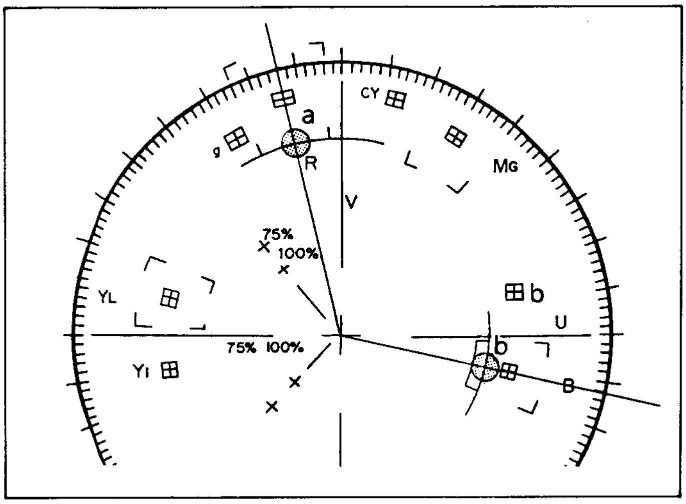


Fig. 1-14.

1-15. 5100°K STANDARD WHITE BALANCE ADJUSTMENT

Vectorscope: RF adaptor (VIDEO OUT)
(Raise the gain until the edges of the burst overlap the outer circumference of the vectorscope. Line selector switch: "+V")

Settings:

① Focus SW → Manual ("MAN")
② Iris SW → Normal ("NORM")
③ Ageing for at least 10 minutes
④ White Balance SW→ ☀ (SUNLIGHT)
⑤ The color viewer 5100°K and shot from about 1 meter away. (No pattern)
⑥ Shoot the colour viewer 5100°K for entire picture plane from about 1 meter apart. (No pattern)

(Adjustment Method)

1. Attach the lens cap, and bring the black vector to the origin position using SVR9308 and SVR9309.
2. Remove the lens cap, and bring the white vector to the "a" position as shown in the Fig. 1-15.

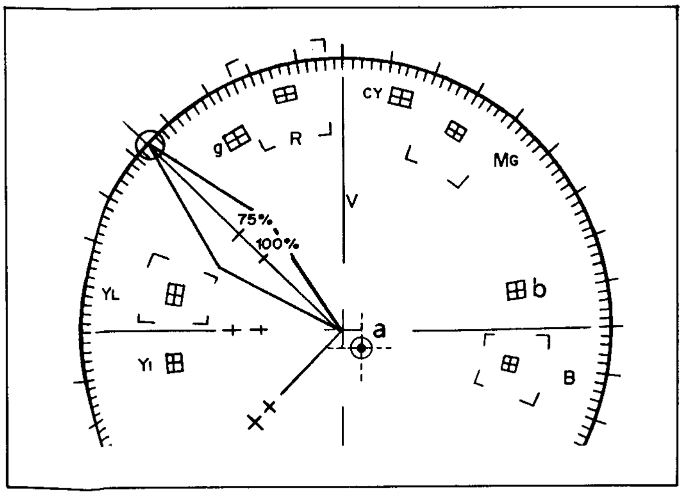


Fig. 1-15.

1-16. AUTO TRACKING 3200°K STANDARD WHITE BALANCE ADJUSTMENT

Vectorscope: RF adaptor (VIDEO OUT)
Raise the gain until the edges of the burst overlap the outer circumference of the vectorscope. Line selector SW: "+V"

Settings:

① Focus SW → Manual ("MAN")
② Iris SW → Normal ("NORM")
③ Ageing for at least 10 minutes
④ White balance SW → Auto or ☼ (Incandescent lamp)
⑤ [A Setting]
Shoot the entire screen with the color viewer 5100°K about 1 meter away (no pattern). At this time, only the light from the color viewer should be incident to the white sensor and the amount of incident light should be at least 100 lux.
[B Setting]
Shoot the entire screen with the halogen viewer 3100°K about 1 meter away (no pattern). At this time, only the light from the halogen viewer should be incident to the white sensor and the amount of incident light should be 100 lux ± 20 lux.
⑥ Adjust the voltage at TP9311 to at least 4V using SVR9312.

(Adjustment Method)

1. In the A setting, set the white balance SW to AUTO ("AUTO") and position the white vector at the "a" position as shown in Fig. 1-15 using SVR9319 and SVR9321.
2. In the B setting set the white balance SW to AUTO ("AUTO") and position the white vector at the origin by using SVR9304 and SVR9305.
3. After adjustment, attach the ND8 filter to the white sensor and make sure that the white vector is not separated from the origin by more than the size of the bright point.
4. In the B setting, set the white balance SW to ☼ , and position the white vector at the origin using SVR9317 and SVR9318.

1-17. CHROMA PHASE ADJUSTMENT

Vectorscope: RF adaptor (VIDEO OUT)

Gain VR of vectorscope: Preset
Line selector SW: "BOTH" for Adjustment 1 and 2.
"+V" for 3.

Settings:

① Focus SW → Manual ("MAN")
② Iris SW → Normal ("NORM")
③ Ageing for at least 10 minutes
④ White balance SW → ☀ (SUNLIGHT)
⑤ The color bar chart is placed in the color viewer 5100°K and this is shot from about 1 meter away. The color bar width should be about 50 ± 0.5 μsec with no slanting or shifting on the screen.
⑥ Adjust the voltage at TP9311 to at least 4V using SVR9312.

(Adjustment Method)

1. Using SVR9322, adjust the average of the two burst to 75%. At the same time, symmetrize the two burst against B-Y axis by using the phase VR of the vectorscope.
2. Using SVR9307, symmetrize the vectors of yellow, red, and blue against B-Y axis.
3. Using SVR9301, SVR9302, SVR9311, and SVR9323, adjust the levels and phases of red and blue vectors.
4. Repeat steps 1 to 3 until all adjustments are settled to the vector positions as Fig. 1-14.

1-18. LOW ILLUMINATION DETECTION CHECKING

Digital voltmeter: CN9291 Pin ⑥
Oscilloscope: TP9208
(1Vdc/div)

Settings:

① Focus SW → Manual ("MAN")
② Iris SW → Normal ("NORM")
③ Ageing 10 minutes or more
④ Shoot the entire screen with the color viewer 5100°K about 1 meter away (no pattern). The lens focus should be less than f=30.

(Checking Method)

1. Attach the ND8 + ND8 + ND70% filters to the lens and make sure that the voltage at TP9208 is less than 0.5V. Approximately 3 seconds are required for the voltage to stabilize, so that make this check after passing 3 seconds.

1-19. HIGH ILLUMINATION DETECTION ADJUSTMENT

Oscilloscope: TP9311
(1Vdc/div)

Settings:

① Focus SW → Manual ("MAN")
② Iris SW → Normal ("NORM")
③ Ageing 10 minutes or more
④ Point the light from the color viewer 5100°K at the white sensor. The amount of incident light should be 1000 ± 50 lux.

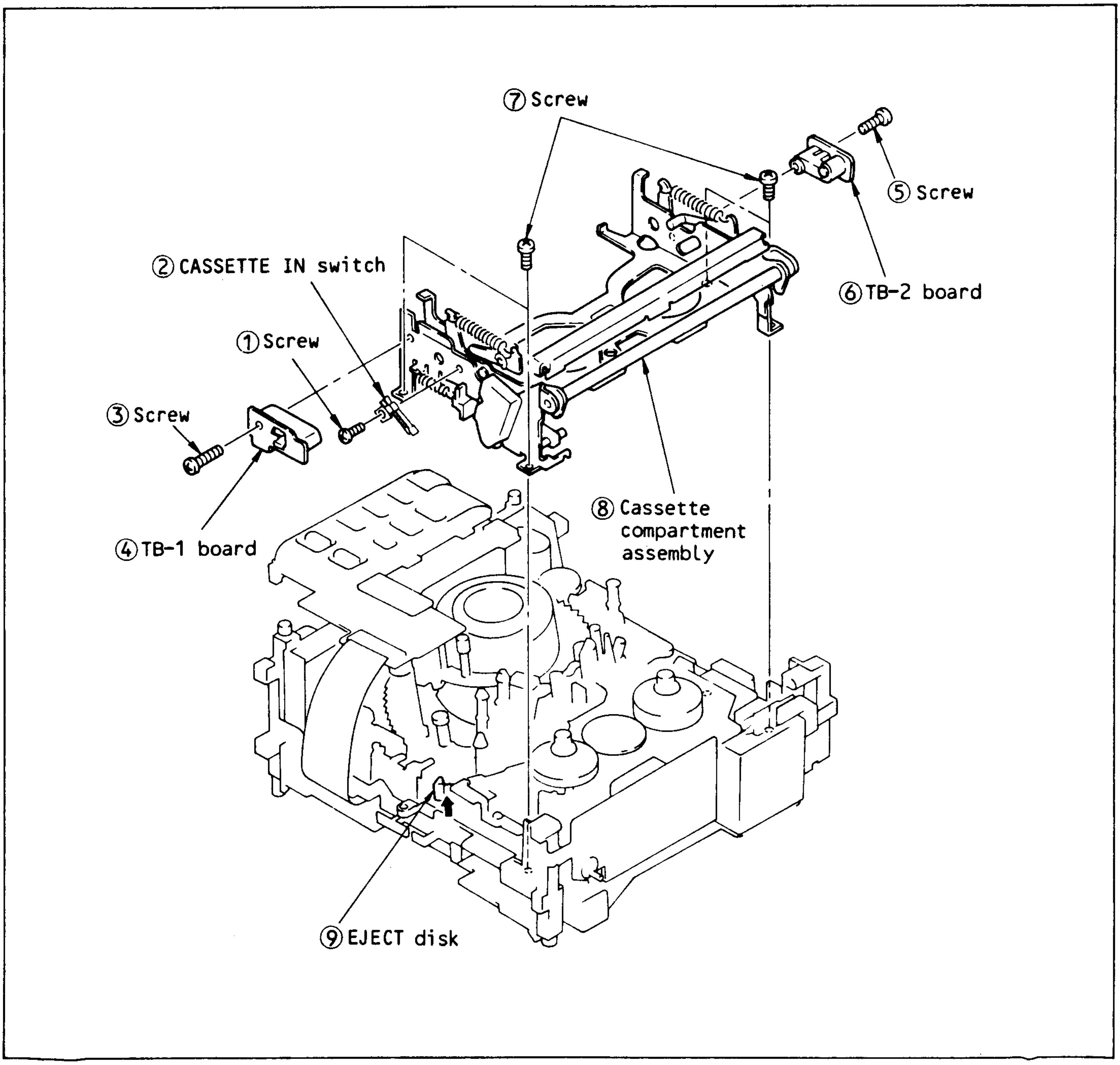
(Adjustment Method)

1. Using SVR9312, make the level of TP9311 go from H to L.
2. Cover the white sensor with the ND70% filter and make sure that level of TP9311 goes from L to H.

2. MECHANISM ADJUSTMENT

2-1. CASSETTE COMPARTMENT ASSEMBLY

1. Removal
1) Remount the screw ① and the cassette-in switch ②.
2) Remount the screw ③ and the TB-1 board ④.
3) Remount the screw ⑤ and the TB-2 board ⑥.
4) Remount four screws ⑦ and the cassette compartment assembly ⑧.


⑦ Screw
⑤ Screw
⑥ TB-2 board
② CASSETTE IN switch
① Screw
③ Screw
④ TB-1 board
⑧ Cassette compartment assembly
⑨ EJECT disk

2. Remounting

1) Remount the cassette compertment assembly⑧ and tighten the screw ⑦ referring to Fig. 2-2. (Push the eject disk ⑨ toward the arrow to avoid the disk hitting the cassette compartment assembly.)

2) Remount the cassette-in switch ② with the screw ①.

3) Remount TB-2 board ⑥ with the screw ⑤ (See Fig. 2-1.)

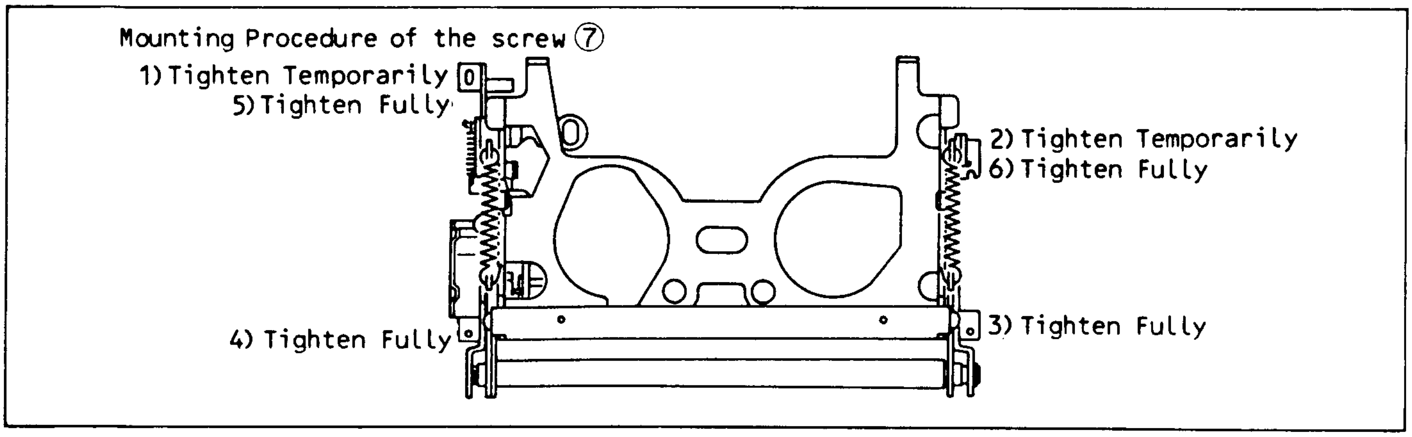

Mounting Procedure of the screw ⑦
1) Tighten Temporarily
5) Tighten Fully
2) Tighten Temporarily
6) Tighten Fully
4) Tighten Fully
3) Tighten Fully

Fig. 2-2

2-2. OPERATING WITHOUT CASSETTE COMPARTMENT ASSEMBLY AND TAPE

Note: Be care that the set may not operate if there is a strong light source near the set.

2-2-1. Loading

1) Turn on power after connecting the power supply.
2) Place a tape on the pin of the RECOG SW assembly ① .
3) Turn on the cassette-in switch ② (See Fig. 2-3.)

2-2-2. Play back

1) Take the steps required in 2-2-1.
2) Place a rubber band ③ between the S and T reels.
3) Cover a cap ④ on the LED.
4) Press the PLAY button. Push the tension regulator arm assembly ⑤ toward the arrow when the T reel starts rotating. (The tension regulator band is released, and the S reel rotates.)
5) Press the STOP button to stop. (See Fig. 2-3.)

2-2-3. Recording

1) Take the steps up to 3) of 2-2-2.
2) Press the REC button down. Push the tension regulator arm assembly ⑤ toward the arrow when the T reel starts rotating.
3) Press the STOP button to stop.

2-2-4. Ejecting

1) Press the EJECT button down.

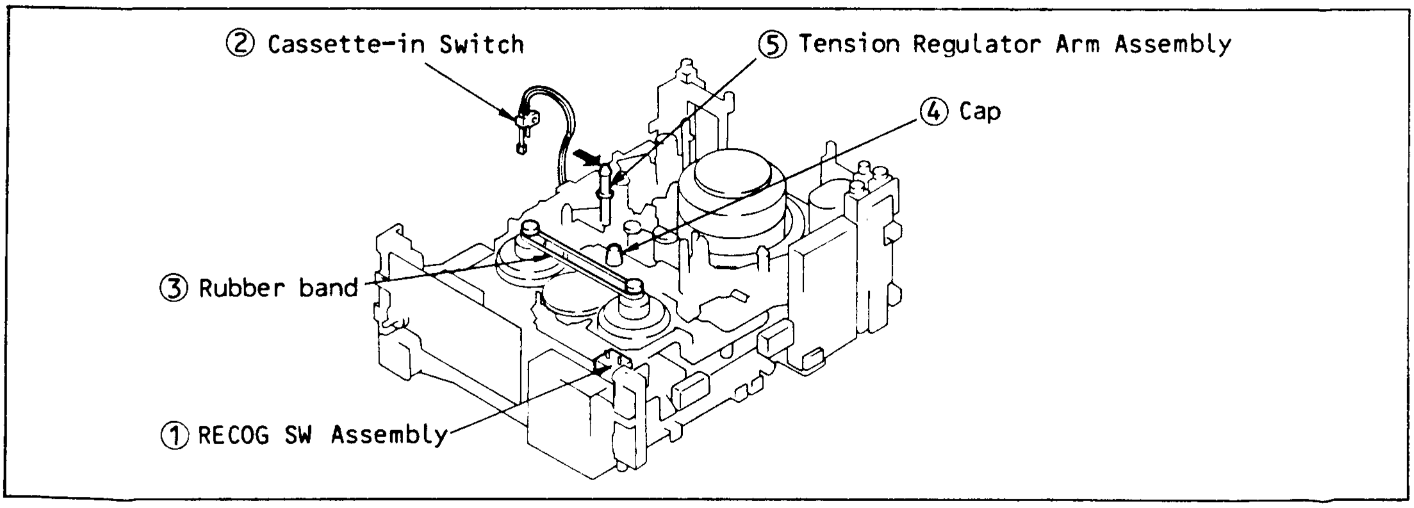

② Cassette-in Switch
⑤ Tension Regulator Arm Assembly
④ Cap
③ Rubber band
① RECOG SW Assembly

Fig. 2-3

2-3. MODE SELECTOR OPERATION

2-3-1. Selector Parts (External View)

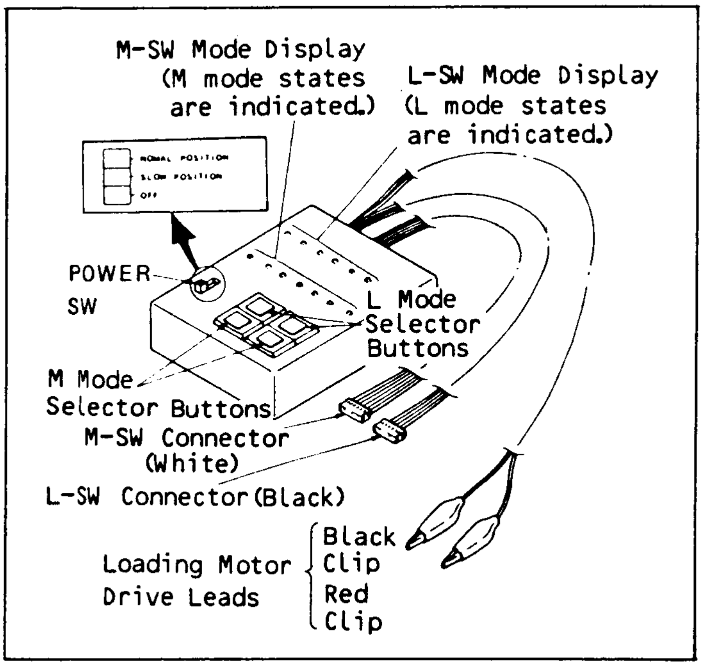

M-SW Mode Display
(M mode states are indicated.)
L-SW Mode Display
(L mode states are indicated.)
NORMAL POSITION
SLOW POSITION
OFF
POWER SW
L Mode Selector Buttons
M Mode Selector Buttons
M-SW Connector (White)
L-SW Connector (Black)
Loading Motor Drive Leads
Black Clip
Red Clip

Fig. 2-4

2-3-2. Connection

1) Plug the M-SW connector (6P connector, 6 harnesses, white) to the CN3503 of the set.
2) Plug the L-SW connector (6P connector, 4 harnesses, black) to the CN3502 of the set.
3) Connect each of red and black clip of the loading motor to each of red and black loading motor drive lead wire, respectively. (See Fig. 2-5.)

2-3-3. Precautions

1) Make sure to set the M-SW mode to LOADING/UNLOADING when operating L-SW.
2) Make sure to set the L-SW mode to TOP or END when operating M-SW.

2-3-4. Operation

"BLANK' lights if each mode state is not to set up during selection regardless of the L or M mode.

1) L Mode
   - * Lighted to right sequentially from LOADING TOP to LOADING END when the righthand side button of the L mode selector buttons is kept pressing.
   - * Keep pressing the selector button on the lefthand side to set up the desired mode in order to change from LOADING END to LOADING TOP.
   - * The L mode operates more slowly in the slow position than in the normal position.
2) M Mode
   - * Set L-SW to LOADING TOP to eject.
   - * Set L-SW to LOADING END to change from FF/REW to RVS or from RVS to FF/REW.
   - * Keep pressing the righthand side selector button of the M MODE to light to right sequentially from EJECT to RVS.
   - * Keep pressing the selector button on the lefthand side to set up the desired mode in order to change from RVS to EJECT.

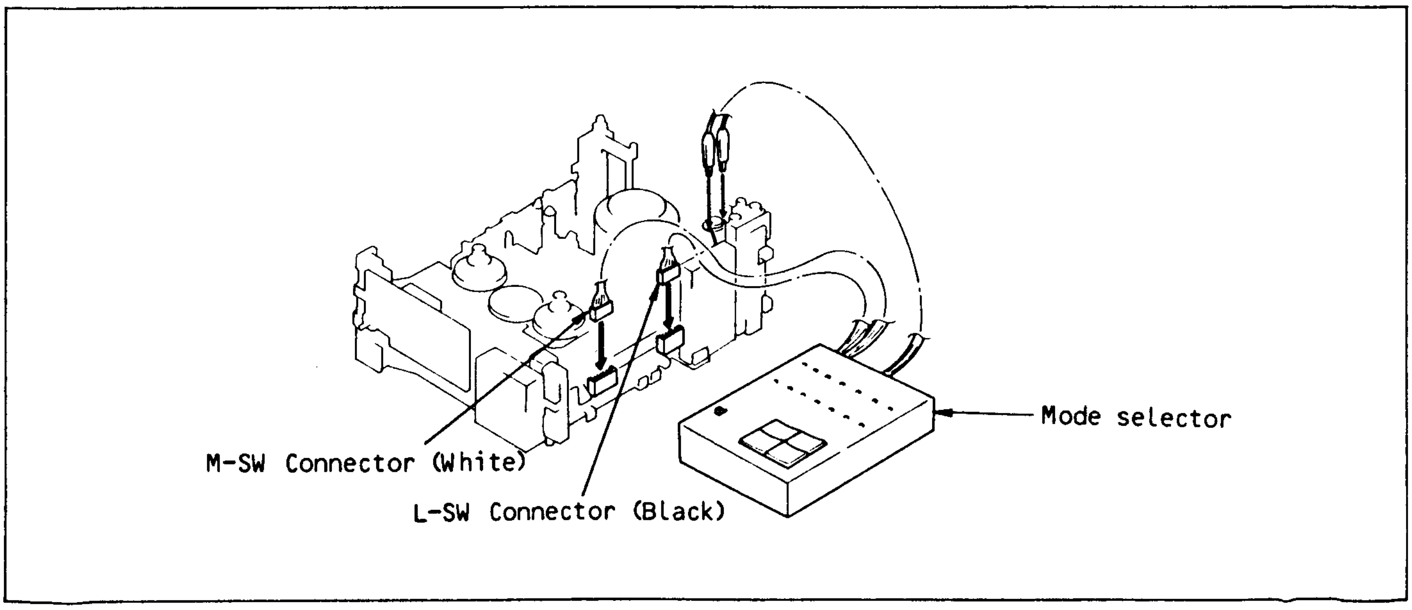
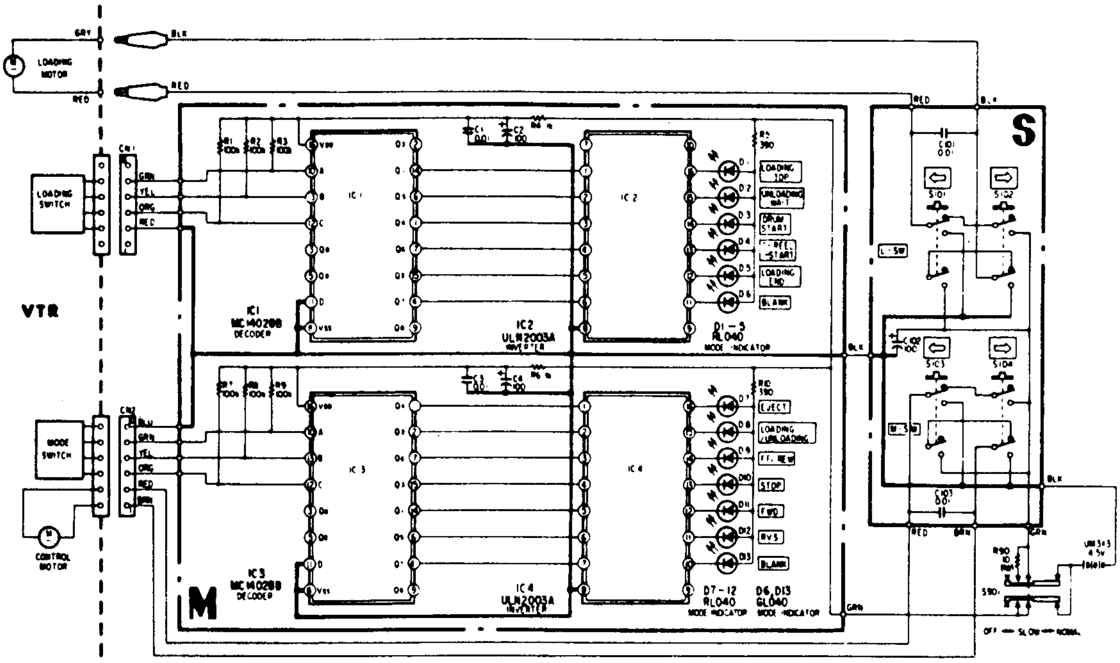

Mode selector
M-SW Connector (White)
L-SW Connector (Black)

Fig. 2-5

2-3-5. Mode Selector Schematic Diagram


GRY
BLK
LOADING MOTOR
RED
LOADING SWITCH
CN1
GRN
YEL
ORG
RED
VTR
MODE SWITCH
CN2
BLU
GRN
YEL
ORG
RED
BRN
CONTROL MOTOR
R1 100k
R2 100k
R3 100k
C1 0.01
C2 100
R4
IC1
IC2
IC1
MC14028B
DECODER
IC2
ULN2003A
INVERTER
R5 390
D1
D2
D3
D4
D5
D6
LOADING TOP
UNLOADING WAIT
DRUM START
REEL START
LOADING END
BLANK
D1-5
RL040
MODE INDICATOR
R7 100k
R8 100k
R9 100k
C3 0.01
C4 100
R6
IC3
IC4
IC3
MC14028B
DECODER
IC4
ULN2003A
INVERTER
R10 390
D7
D8
D9
D10
D11
D12
D13
EJECT
LOADING /UNLOADING
FF. REW
STOP
FWD
RVS
BLANK
D7-12
RL040
MODE INDICATOR
D6, D13
GL040
MODE INDICATOR
M
S
RED
BLK
C101 0.01
S101
S102
L-SW
BLK
C102 100
S103
S104
M-SW
BLK
C103 0.01
RED
GRN
GRN
R90 10 MEG
UM3×3 4.5V
S901
GRN
OFF ← SLOW ← NORMAL

M-SW (IC 3)

DECODER INPUT			MODE	LED NO
C	B	A		
0	0	0		
0	0	1	FWD	D11
0	1	0	LOADING/UNLOADING	D8
0	1	1	STOP	D10
1	0	0	EJECT	D7
1	0	1	RVS	D12
1	1	0	FF·REW	D9
1	1	1	BLANK	D13

0 : INPUT LEVEL L
1 : INPUT LEVEL H

L-SW (IC 1)

DECODER INPUT			MODE	LED NO
C	B	A		
0	0	0		
0	0	1	LOADING TOP	D1
0	1	0		
0	1	1	LOADING END	D5
1	0	0	DRUM START	D3
1	0	1	UNLOADING WAIT	D2
1	1	0	T-REEL-START	D4
1	1	1	BLANK	D6

SWITCH		DIRECTION OF MOTOR REVOLUTION
⇦	⇨	
OFF	OFF	STOP
ON	OFF	⇦
OFF	ON	⇨

⇦ L-SW LOADING END → LOADING TOP
M-SW RVS → EJECT

⇨ L-SW LOADING TOP → LOADING END
M-SW EJECT → RVS

Fig. 2-6

2-4. PERIODIC CHECKING AND MAINTENANCE ITEMS

Maintenance and periodic checking should be performed as described below to demonstrate the set functions and performance fully, as well as for the sake of the machine and tapes. Provide the following maintenance work after a repair regardless of the duration of operation by the user.

2-4-1. Cleaning Rotary Drum Assembly

1) Lightly place chamois leather (Ref. No. J-2) moisted with a cleaning solution (Ref. No. J-1) on the rotary upper drum assembly and slowly rotate the rotary upper drum assembly counterclockwise by finger to clean.

Note: Do not rotate the drum by the motor by turning on power or by rotating clockwise by a finger.
The chances of the head chip being damaged are very high if chamois leather is moved perpendicular to the head chip.
Absolutely no cleaning method other than that described above should be used.

2-4-2. Tape Guide System Cleaning

1) Set up the cassette compartment assembly in an eject state and clean the tape guide system (No. 1 to 11 guides, capstan spindle and pinch roller) with chamois leather moisted with a cleaning solution. (See Fig. 2-7.)

2-4-3. Drive System Cleaning

1) Clean the drive system (timing belt and reel table surfaces) with a cloth moisted with a cleaning solution.

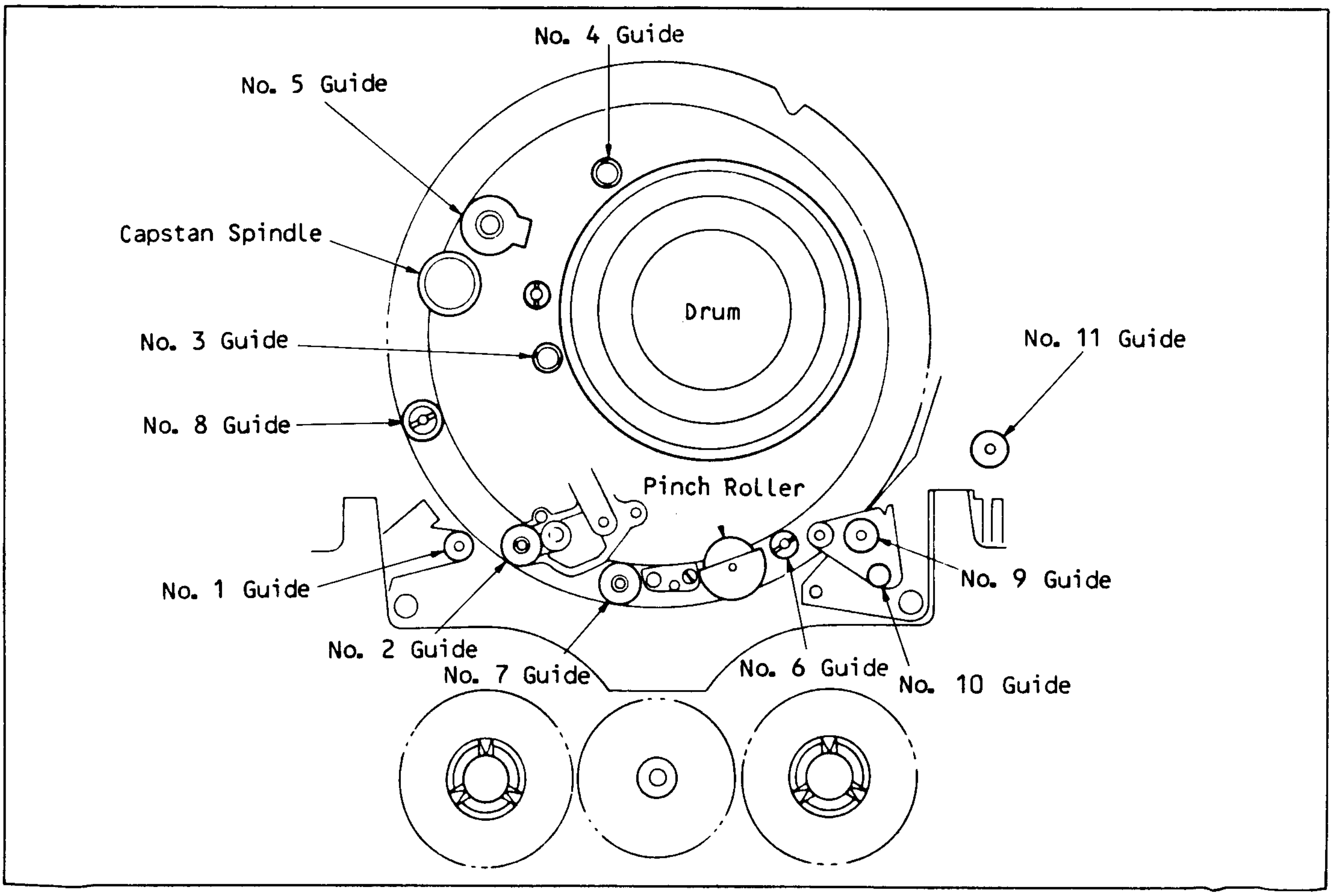

No. 4 Guide
No. 5 Guide
Capstan Spindle
Drum
No. 3 Guide
No. 11 Guide
No. 8 Guide
Pinch Roller
No. 1 Guide
No. 9 Guide
No. 2 Guide
No. 7 Guide
No. 6 Guide
No. 10 Guide

Fig. 2-7

2-4-4. Periodic Check Items

Provide the following maintenance and checking depending on the user use duration.

○Cleaning ◎Lubrication ★Replacement ☆Confirmation

Maintenance and Check Part		Hours in Operation (H)										Remarks
		500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000	
Tape Guide System	Cleaning of tape running surfaces	○	○	○	○	○	○	○	○	○	○	Avoid oil
	Cleaning and demagnetizing of rotary drum assembly	○	○	○	○	○	○	○	○	○	○	Avoid oil
System	L motor belt	○	○	○	○	○	○	○	★	○	○	Replace here, or every two years
	Timing belt	○	○	○	○	○	○	○	○	○	○	
	Plunger solenoid	—	—	—	○	—	—	—	○	—	—	
	Capstan bearing	—	◎	—	◎	—	◎	—	◎	—	◎	Absolutely avoid oil on tape running surfaces.
	Loading motor	—	☆	—	☆	—	☆	—	☆	—	☆	
	Control motor	—	☆	—	☆	—	☆	—	☆	—	☆	
Perform Checking	Abnormal sound	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	
	Back tension measurment	—	☆	—	☆	—	☆	—	☆	—	☆	
	Brake system	—	☆	—	☆	—	☆	—	☆	—	☆	
	FWD RVS } Torque measurment	—	☆	—	☆	—	☆	—	☆	—	☆	

Note: Replace parts in overhaul taking foregoing items into consideration.

Note: SANYO Oil

- ★ Be sure to use SANYO oil, always. (Various kinds of trouble may occur if the oil viscosity, etc. change.) SANYO Oil. Parts No. 7-661-088-61 (Mitsubishi Diamond Oil #400)
- ★ Be sure to use SANYO oil completely free from dust, etc. mixed in it when oiling the bearings. (The bearings may wear and may be seized if oil mixed with dust, etc. is used.)
- ★ One drop of oil is approximately the amount of oil on tip of a stick 2mm in diameter as shown in the diagram. (See Fig. 2-8.)

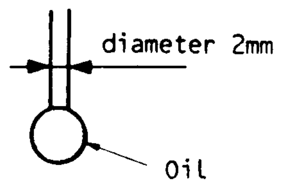


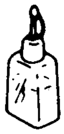
Fig. 2-8

2-4-5. Summary of Servicing Tools

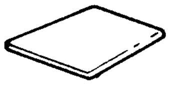
Ref. No.	Name	Part Code	Fixture No.	Use
J-1	Cleaning Fluid	Y-2031-001-0	——	
J-2	Chamois Leather	2-034-697-00	——	
J-3	Head Demagnetizer	Commercially available type		
J-4	Dental Mirror (handle) Dental Mirror (Mirror)	J-6080-029-A J-6080-030-1	SL-5052	Tape Path
J-5	Alignment Tape (WR5-1C)	8-967-995-06		Tape Path
J-6	Dial Tension Gauge	J-6080-827-A		Measuring torques
J-7	Tension measuring reel	J-6080-831-A		With ø 30 tape
J-8	Tension measuring reel	J-6080-832-A		With ø 16 string
J-9	No.10 gear phase matching	J-6080-823-A	GD-2047	
J-10	Rotary DRUM JIG	(Packed with upper drum for repair)		
J-11	No.6 Guide Lock Driver	J-6080-826-A	GD-2086	
J-12	FWD, RVS Take-up Torque Cassette	J-6080-824-A		
J-13	Mode Selector	J-6080-825-A		The whole
J-14	Track Shift & Monitor JIG	VJ8-0016		Tape Path

Other equipment: Oscilloscope
Analog Tester (20kohms)

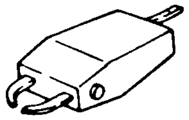
J-1



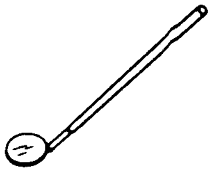
J-2



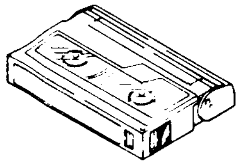
J-3



J-4



J-5



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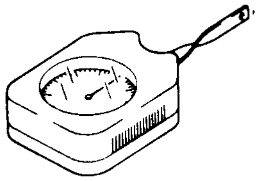
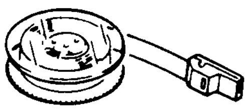
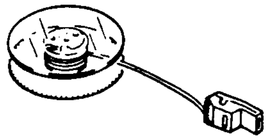


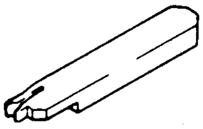
J-7



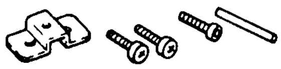
J-8



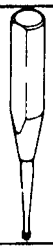
J-9



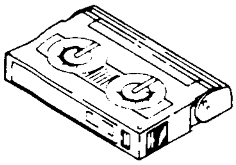
J-10



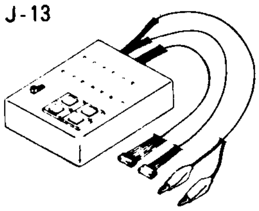
J-11



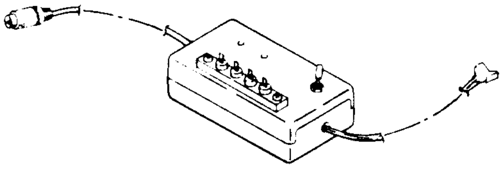
J-12



J-13



J-14



2-5. MECHANISM SECTION CHECKING, ADJUSTMENT AND REPLACEMENT

Note: * Use a mode selector (Ref. No. J-13) to check, adjust, and replace this mechanism section.
* The modes in ☐ are set up by pressing the mode selector buttons.

2-5-1. S Reel Table Assembly

1. Removal
1) Remove the cassette compartment assembly as instructed in 2-1.
2) Set up the FF/REW mode.
3) Remove the screw ① and band guide ②.
4) Remove the REV brake ③.
5) Remove the S reel table assembly ④. (See Fig. 2-9)

Note: Be sure to hold the upper click part in hand when removing. (See the Note in Fig. 2-9.)

2. Remounting
1) Oil half a drop of oil on the upper spherical part of the spindle ⑤.
2) Move the S main brake assembly ⑥ toward the arrow Ⓐ.
3) Remount the S reel table assembly ④ not to touch the tension regulator band assembly ⑦.
4) Remount the REV brake ③.
5) Remount the band guide ② and tighten the screw ①. (See Fig. 2-9.)
6) Set up the LOADING/UNLOADING mode.
7) Remount the cassette compartment assembly as instructed in 2-1.

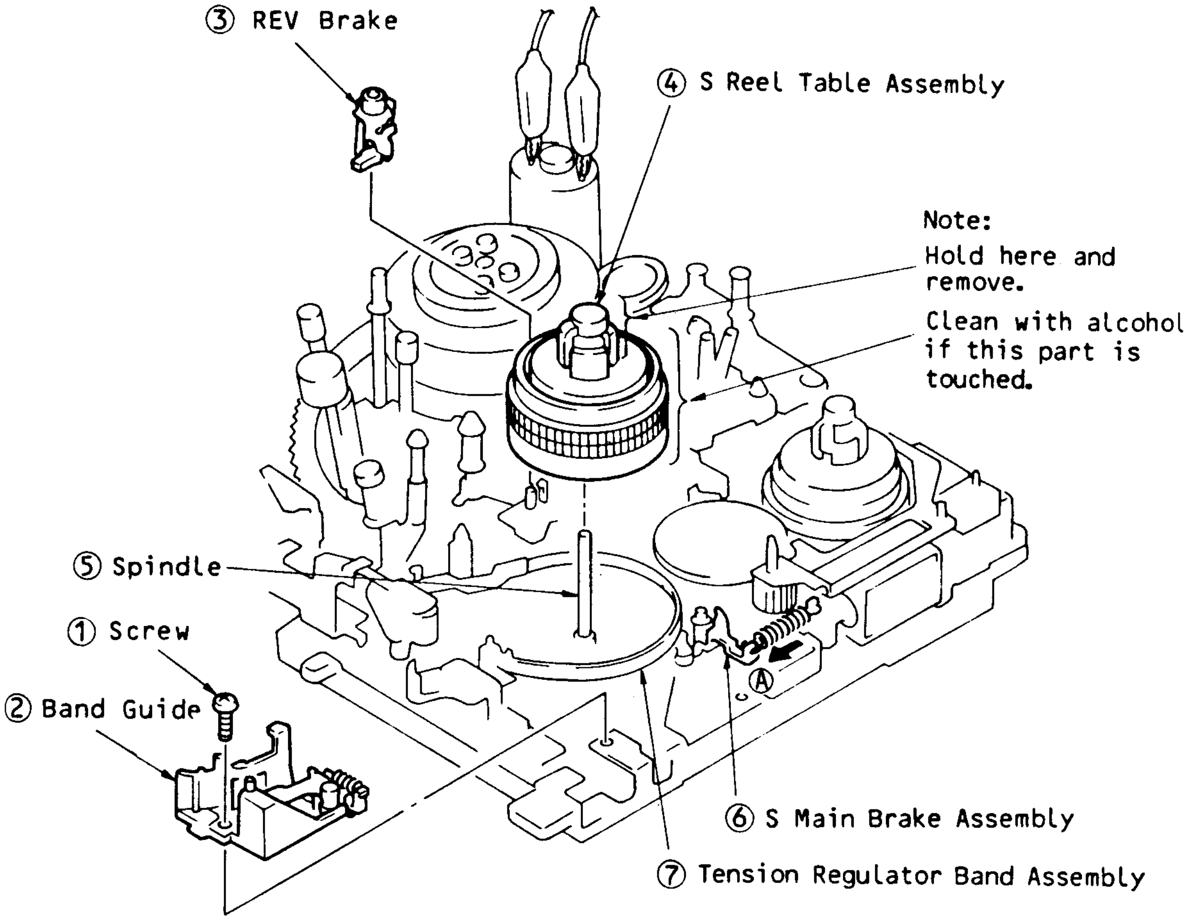

③ REV Brake
④ S Reel Table Assembly
Note:
Hold here and remove.
Clean with alcohol if this part is touched.
⑤ Spindle
① Screw
② Band Guide
Ⓐ
⑥ S Main Brake Assembly
⑦ Tension Regulator Band Assembly

Fig. 2-9

2-5-2. T Reel Table Assembly

1. Removal
1) Remove the cassette compartment assembly as instructed in 2-1.
2) Set up the UNLOADING WAIT mode.
3) Disconnect the spring ② attached to the T soft brake ①.
4) Remove the stopper washer ③ and T soft brake ①.
5) Set up the EJECT mode.
6) Move the drive gear (B) ④ toward the arrow Ⓐ.
7) Remove the T reel table assembly ⑤. (See Fig. 2-10.)

Note: Be sure to hold the upper click part in hand when removing. (See the Note in Fig. 2-9.)

2. Remounting
1) Oil half a drop of oil on the upper spherical part of the spindle ⑥.
2) Move the drive gear (B) ④ toward the arrow Ⓐ.
(Check that the EJECT mode is set up.)
3) Remount the T reel assembly ⑤.
4) Remount the T soft brake ① and stop washer ③.
5) Rehook the spring ② on the click of the T soft brake ①. (See Fig. 2-10.)
6) Set up the LOADING TOP and LOADING/UNLOADING modes.
7) Remount the cassette compartment assembly as instructed in 2-1.

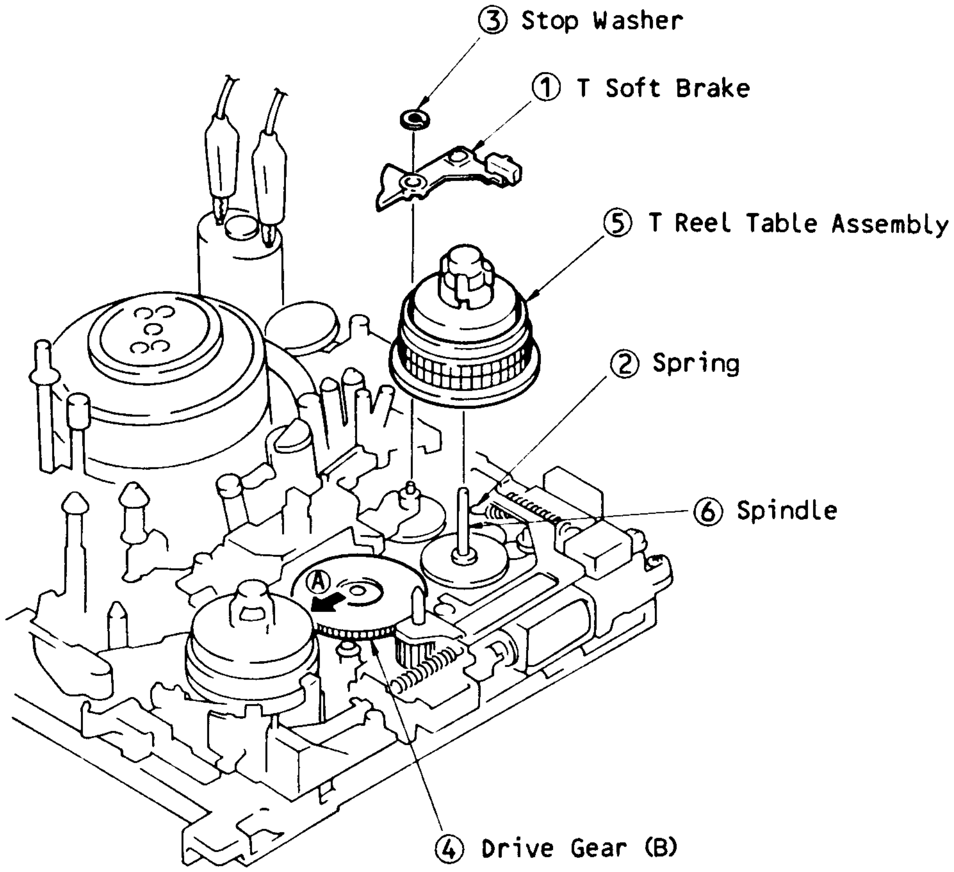


Fig. 2-10

2-5-3. Pinch Press Arm Assembly

1. Removal
1) Hook the spring ① on the pinch press arm assembly ②.
2) Remove the stop washer ③ and pinch press arm assembly ②. (See Fig. 2-11.)

2. Remounting
1) Oil half a drop of oil on the spindle ④.
2) Remount the pinch press arm assembly ② and stop washer ③.
3) Rehook the spring ① on the tension regulator spring hook assembly ⑤. (See Fig. 2-11.)

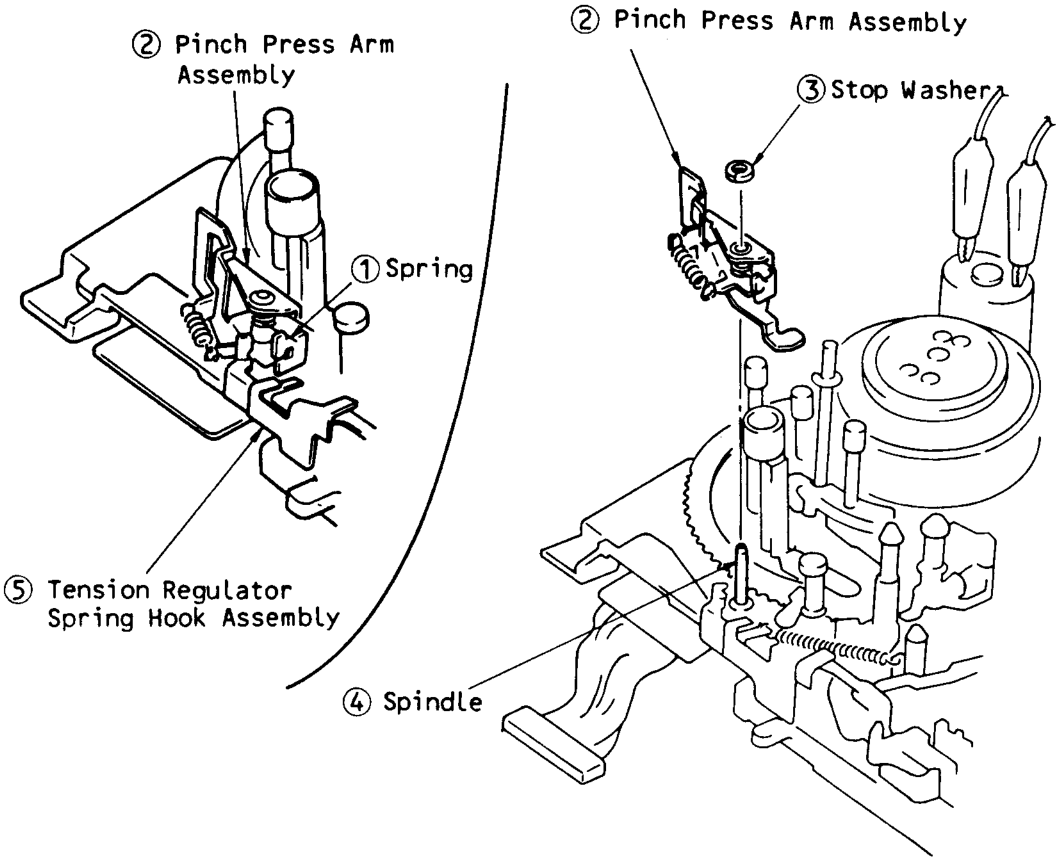

② Pinch Press Arm Assembly
① Spring
⑤ Tension Regulator Spring Hook Assembly
② Pinch Press Arm Assembly
③ Stop Washer
④ Spindle

Fig. 2-11

2-5-4. Tension Regulator Arm Assembly

1. Removal

1) Remove the cassette compartment assembly as instructed in 2-1.
2) Change the hooking position of the spring as instructed in 1) of Removal in 1. of 2-5-3.
3) Remove the spring ①. (Write down the spring hooking position).
4) Remove the screw ② and tension regulator spring hook assembly ③.
5) Set up the FF/REW mode.
6) Disengage the click ④ of the tension regulator band assembly.
7) Remove the tension regulator arm assembly ⑤. (See Fig. 2-12.)

2. Remounting

1) Oil half a drop of oil on the spindle ⑥.
2) Remount the tension regulator arm assembly ⑤ inserting the tension regulator load arm assembly pin ⑦ in the cam groove on the rear side of the tension regulator arm assembly ⑤.
3) Disengage the tension regulator band assembly click ④. (Do not touch or deform the band.)
4) Set up the LOADING/UNLOADING mode.
5) Remount the tension regulator spring hook assembly ③ and tighten the screw ②.
6) Rehook the spring ① in the previous position and lock the screw. (See Fig. 2-12.)
7) Rehook the spring as instructed in 3) of Remounting in 2. of 2-5-3.
8) Remount the cassette compartment assembly as instructed in 2-1.

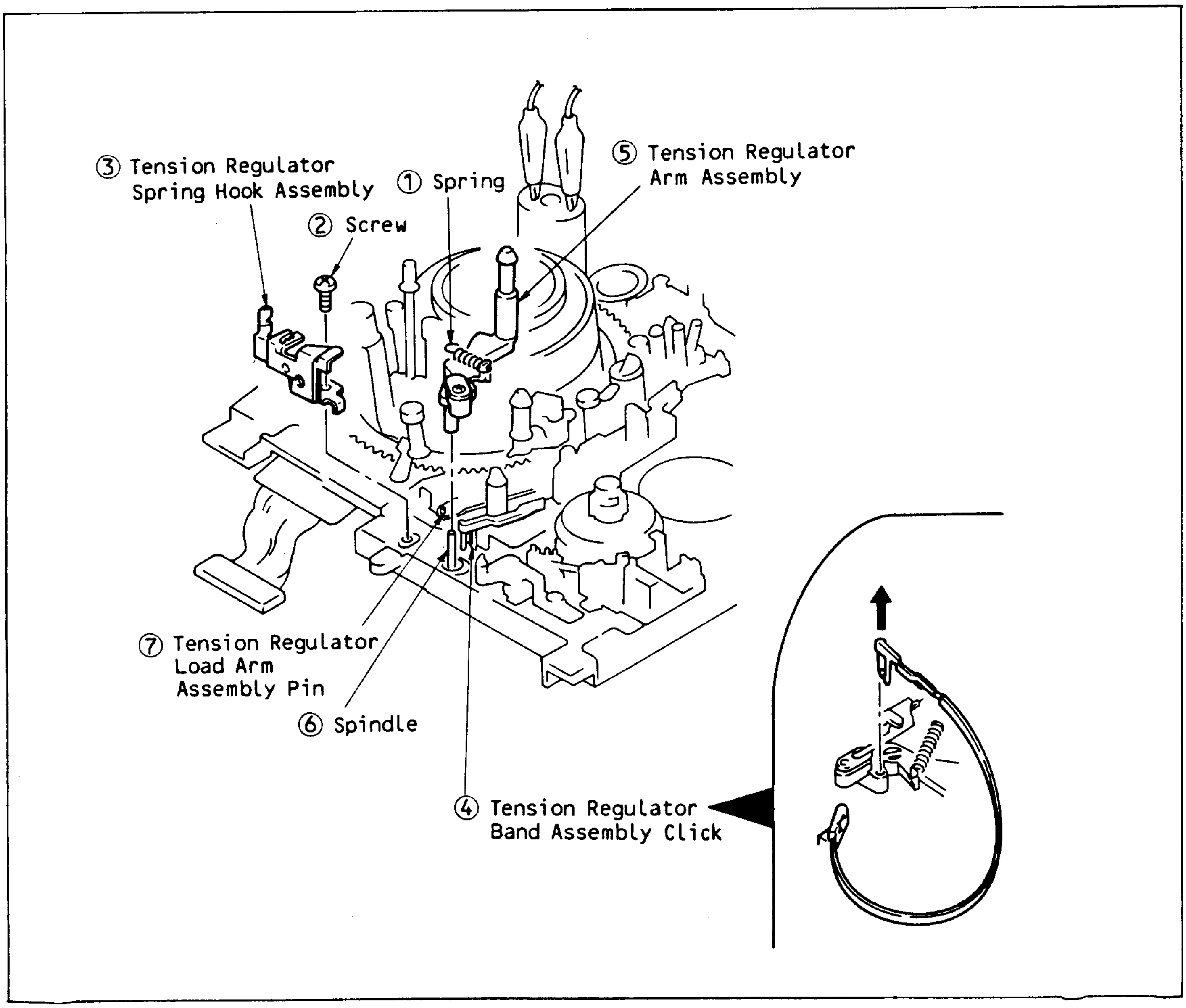

③ Tension Regulator Spring Hook Assembly
① Spring
② Screw
⑤ Tension Regulator Arm Assembly
⑦ Tension Regulator Load Arm Assembly Pin
⑥ Spindle
④ Tension Regulator Band Assembly Click

Fig. 2-12

2-5-5. Tension Regulator Band Assembly

1. Removal
1) Remove the S reel table assembly as instructed in 2-5-1.
2) Disengage the band arm assembly click ①.
3) Disengage the click ② and remove the tension regulator band assembly ③. (See Fig. 2-13.)

2. Remounting
1) Remount the tension regulator band assembly ③. (Do not touch or deform the band.)
2) Reengage the band arm assembly click ①. (See Fig. 2-14.)
3) Remount the S reel table assembly as instructed in 2-5-1.
4) Adjust the FWD back tension as instructed in 2-5-21.

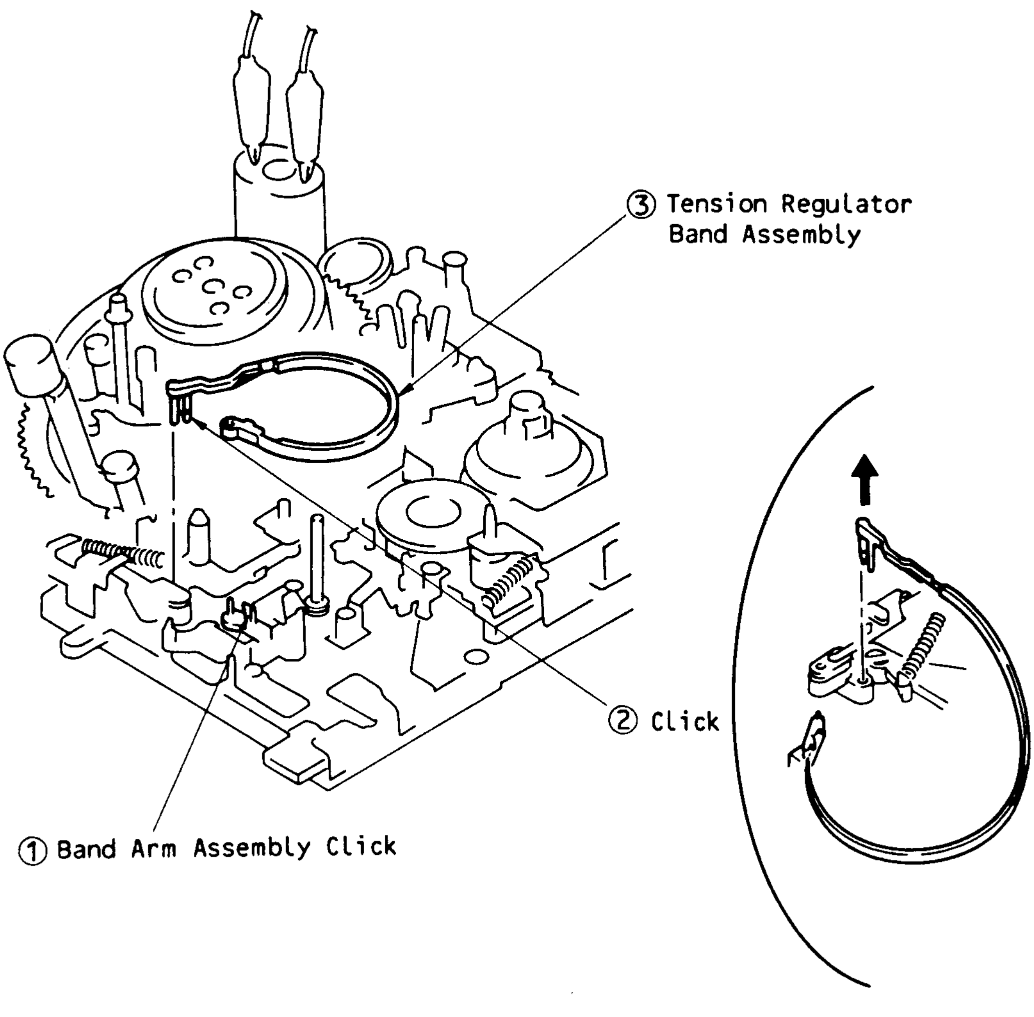

③ Tension Regulator Band Assembly
② Click
① Band Arm Assembly Click

Fig. 2-13

2-5-6. Loading Motor Assembly

1. Removal
1) Open the SV-1 Board as instructed in 2. Removal.
2) Remove the L motor belt ①.
3) Remove the screws ③ and loading motor assembly 4. (See Fig. 2-14.)

2. Remounting
1) Remount the loading motor assembly ④ and tighten the two screws ③.
2) Remount the L motor belt ①. (See Fig. 2-15.)
3) Reassemble the circuit boards reversing the sequence of 2. Removal.

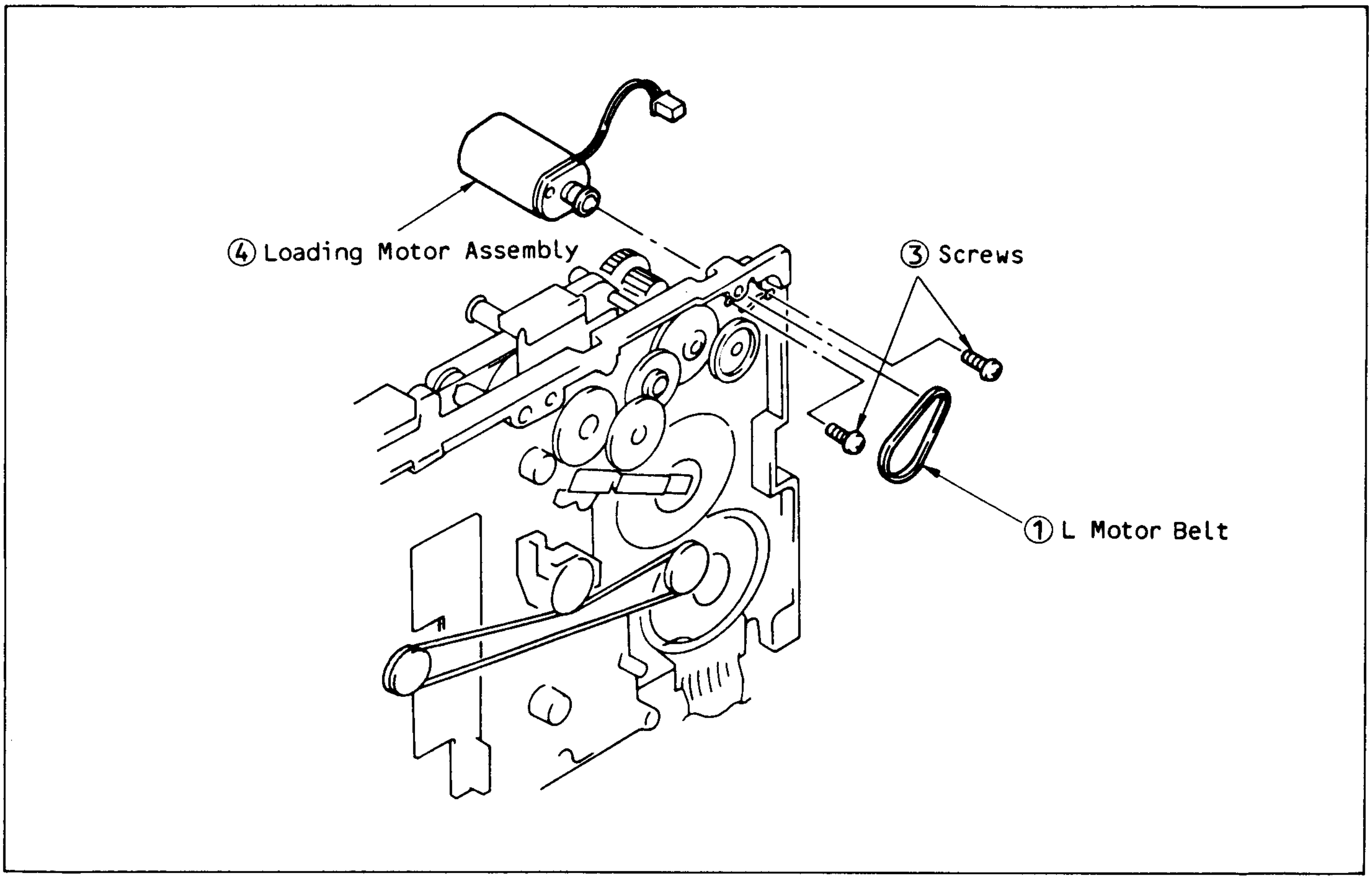

④ Loading Motor Assembly
③ Screws
① L Motor Belt

Fig. 2-14

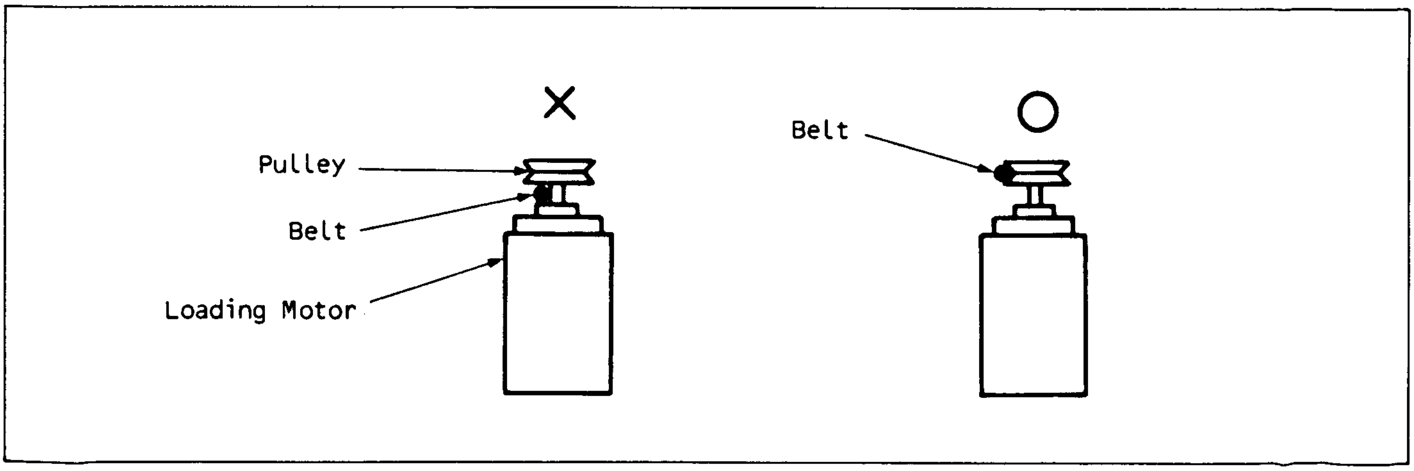

×
Pulley
Belt
Loading Motor
○
Belt

Fig. 2-15

2-5-7. Loading Ring Assembly

1. Removal

1) Operate the mode selectors to move the guide base assembly ① to immediately before the lock and the No. 2 guide ② to the position where the screw of the ring stopper ③ immediately before the lock. (Do not move the loading ring assembly ⑪ .)
2) Remove the stop washer ④ and disengage the No. 10 gear assembly ⑤ .
3) Remove the screw ⑥ , roller retainer ⑦ and roller ⑧ .
4) Remove the two screws ⑨ , ring stopper ③ , and roller ⑩ .
5) Remove the loading ring assembly ⑪ in the arrow Ⓐ direction. (See Fig. 2-16.)

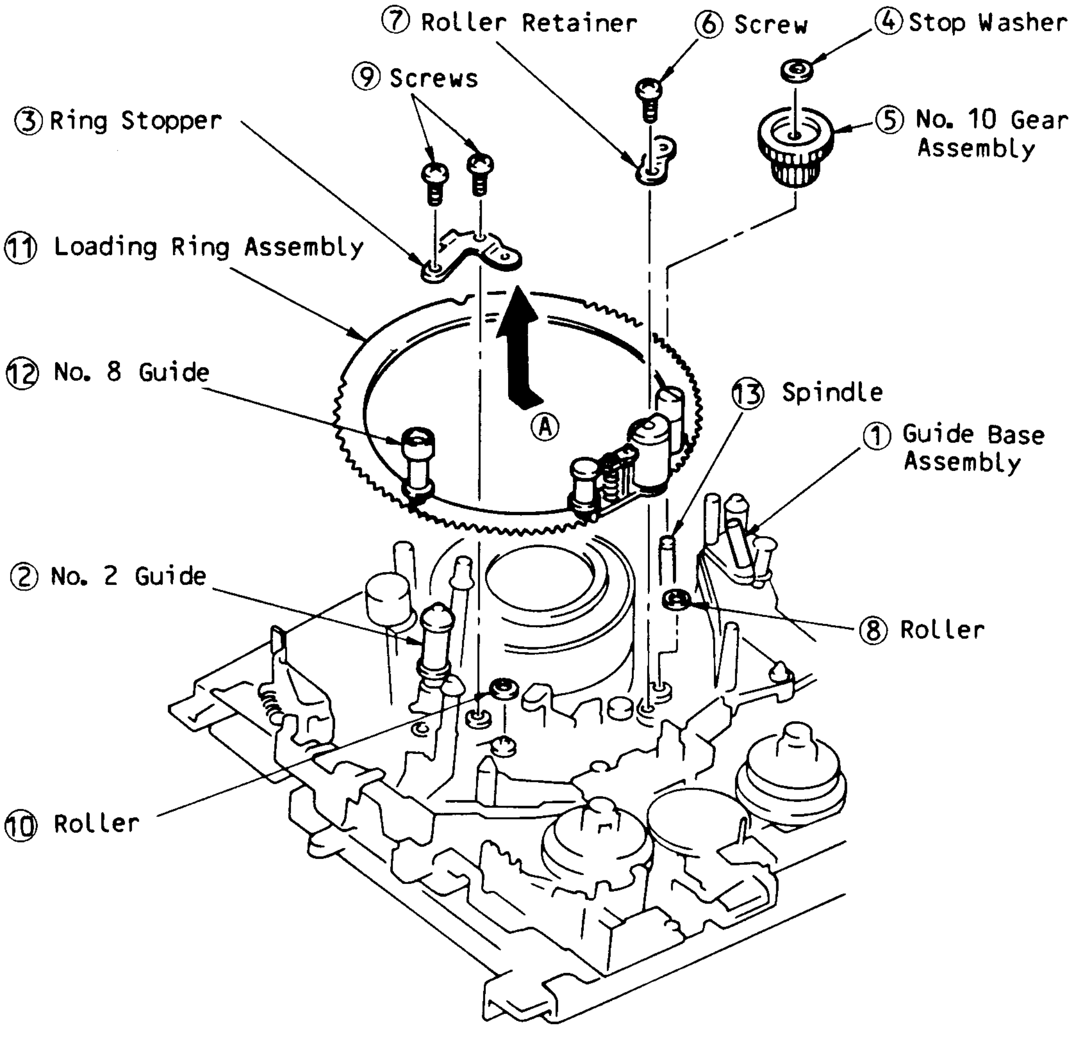

⑦ Roller Retainer
⑥ Screw
④ Stop Washer
⑨ Screws
③ Ring Stopper
⑤ No. 10 Gear Assembly
⑪ Loading Ring Assembly
⑫ No. 8 Guide
Ⓐ
⑬ Spindle
① Guide Base Assembly
② No. 2 Guide
⑧ Roller
⑩ Roller

Fig. 2-16

2. Remounting

1) Remount the loading ring assembly ⑪ in an unloading condition.
(Check that the loading ring assembly is in the condition of 1) of Removal.)
2) Remount the roller ⑩ and ring stopper ③ and tighten the two screws ⑨. (The No.8 guide ⑫ should be located near the cassette compartment assembly than the ring stopper ③.)
3) Remount the roller ⑧ and roller retainer ⑦ and tighten the screw ⑥. (Check that the loading ring assembly fits the three rollers.)
4) Oil half a drop of oil on the spindle ⑬. (See Fig. 2-16.)
5) Check that the tooth of the drive changer is engaging the dent of the L-SW assembly and plug the No. 10 gear phase alignment jig. (Ref. No. J-9) (See Fig. 2-17.)
6) Remount the No. 10 gear ⑤ and stop washer ④ pressing the No. 8 guide ⑫ to the ring stopper ③.
7) Pull out the No. 10 gear phase alignment jig.
8) Set up the LOADING TOP mode.

Note: Be sure to adjust the tape path as instructed in 2-6 after remounting.

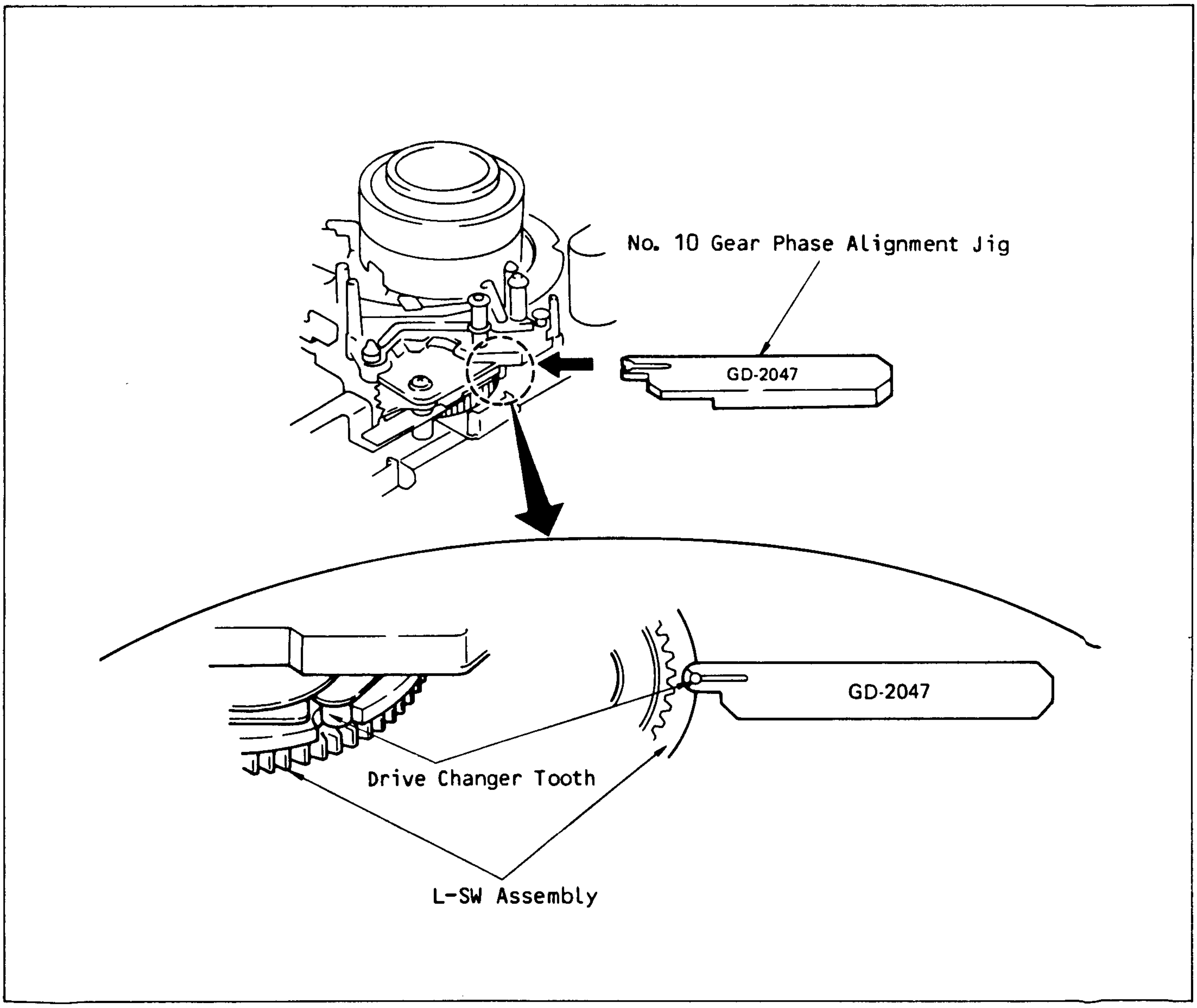


Fig. 2-17

2-5-8. Pinch Roller Assembly

1. Removal

1) Remove the loading ring assembly as instructed in 2-5-7.
2) Remove the stop washer ①. (See Fig. 2-18.)
3) Change the hooking position of the spring ③ on the No. 7 guide assembly ②. (See Fig. 2-19.)
4) Rotate the pinch roller assembly ④ in the arrow Ⓐ direction. (See Fig. 2-20.)
5) Remove the pinch roller assembly ④ toward the arrow Ⓑ. (See Fig. 2-21.)
6) Remove the spring ③. (See Fig. 2-22.)

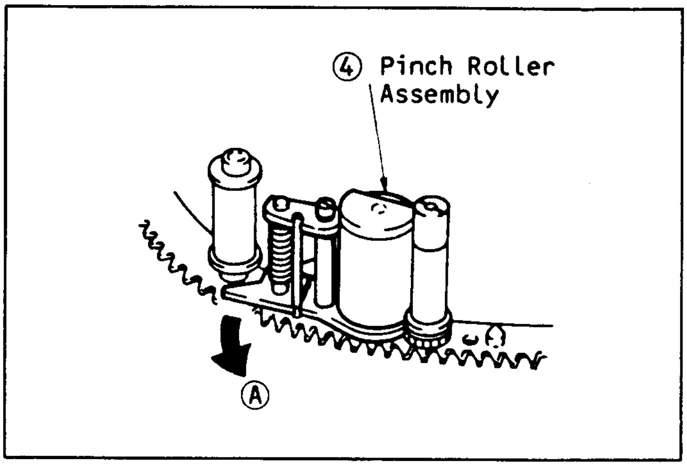

④ Pinch Roller Assembly
Ⓐ

Fig. 2-20

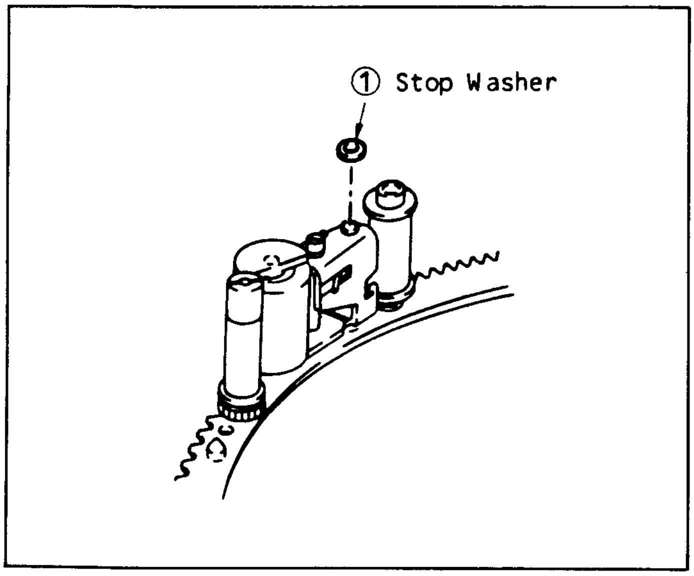

① Stop Washer

Fig. 2-18

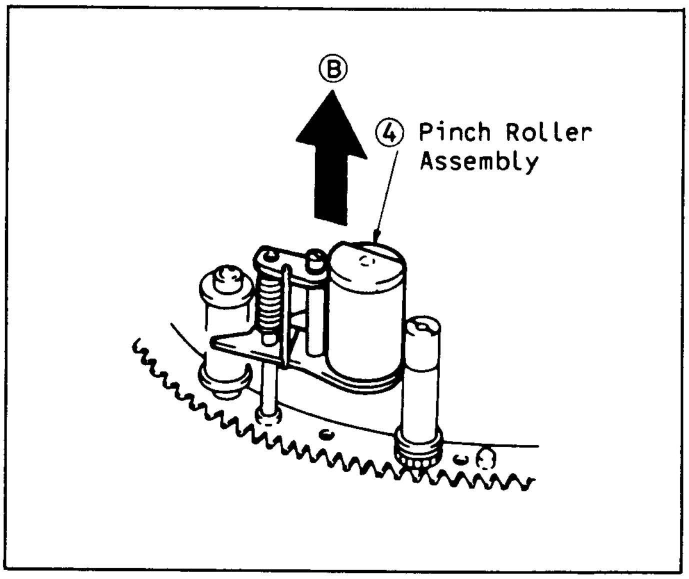

Ⓑ
④ Pinch Roller Assembly

Fig. 2-21

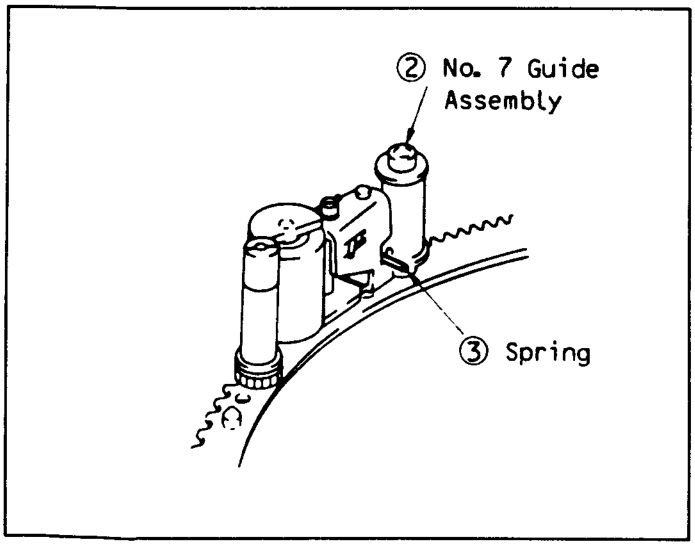

② No. 7 Guide Assembly
③ Spring

Fig. 2-19

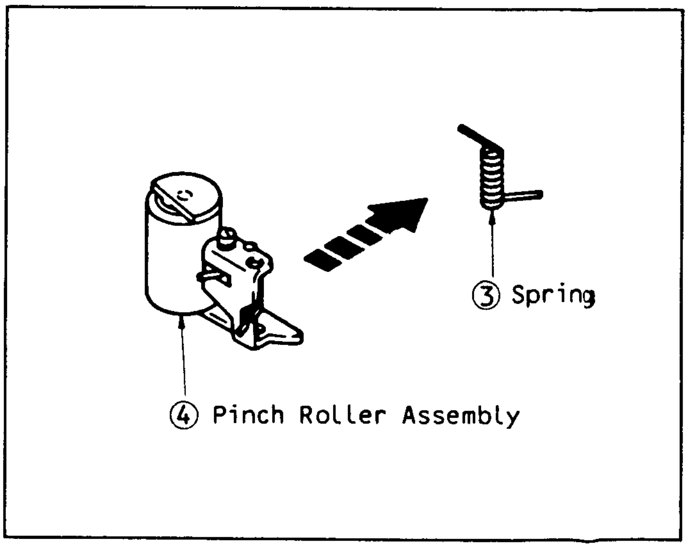

③ Spring
④ Pinch Roller Assembly

Fig. 2-22

2. Remounting

1) Rehook the spring ③. (See Fig. 2-23.)
2) Reinsert a thin object like a clip ⑤ into the pinch roller assembly hole ⑥. (See Fig. 2-24 and 25.)
3) Reconnect the loading ring assembly spindle ⑦ with the tip of the clip ⑤ and fit the pinch roller assembly ④. (See Fig. 2-26 and 27.)
4) Rehook the spring ③ on the No. 7 guide assembly ②. (See Fig. 2-28.)
5) Remount the stop washer ①. (See Fig. 2-29.)
6) Remount the loading ring assembly as instructed in 2-5-7.

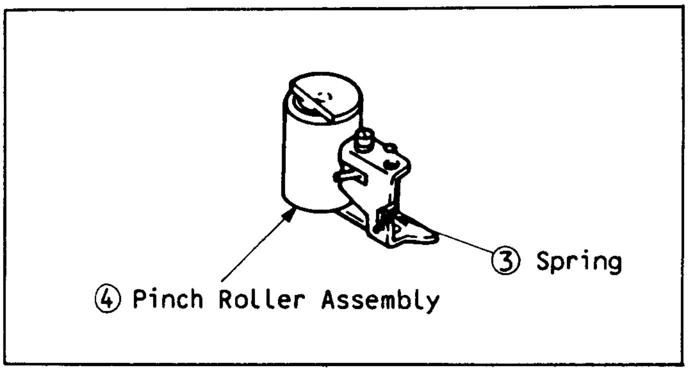

③ Spring
④ Pinch Roller Assembly

Fig. 2-23

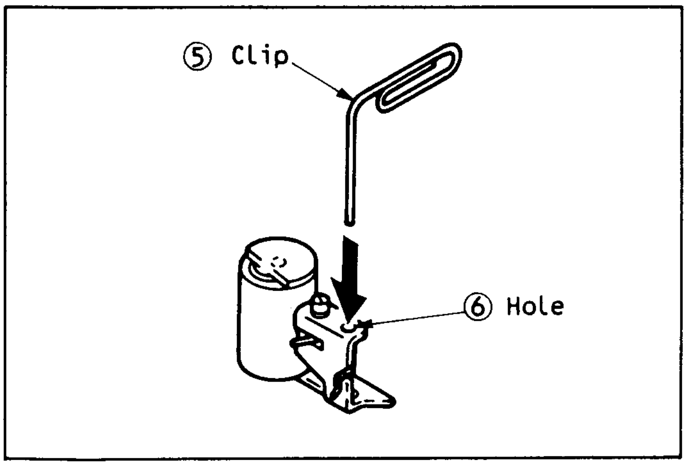

⑤ Clip
⑥ Hole

Fig. 2-24

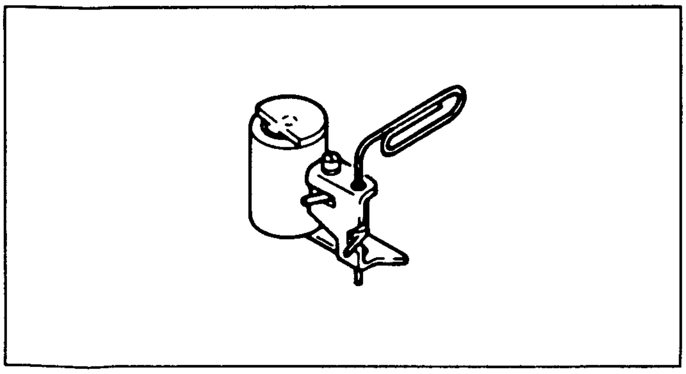


Fig. 2-25

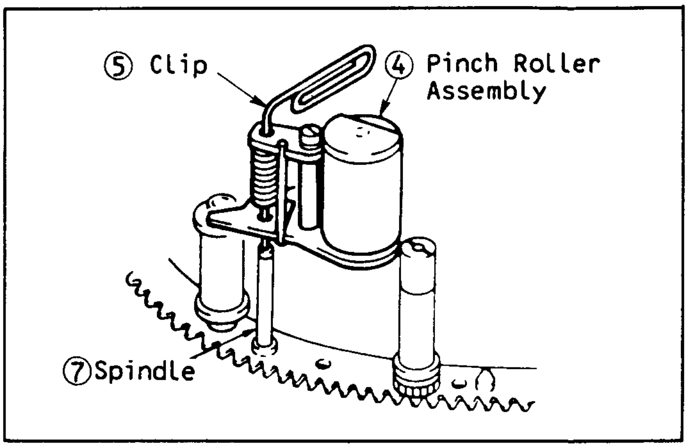

⑤ Clip
④ Pinch Roller Assembly
⑦Spindle

Fig. 2-26

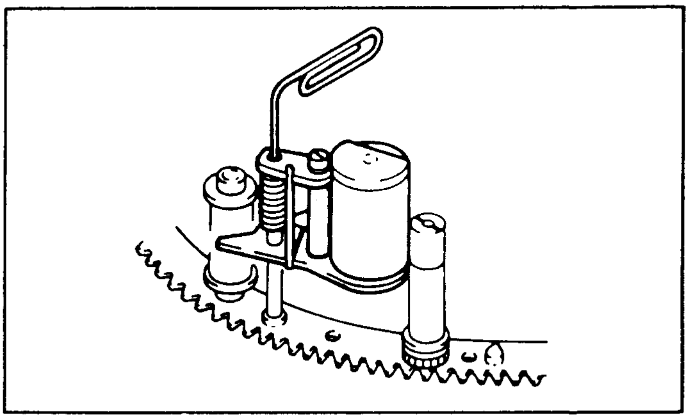


Fig. 2-27

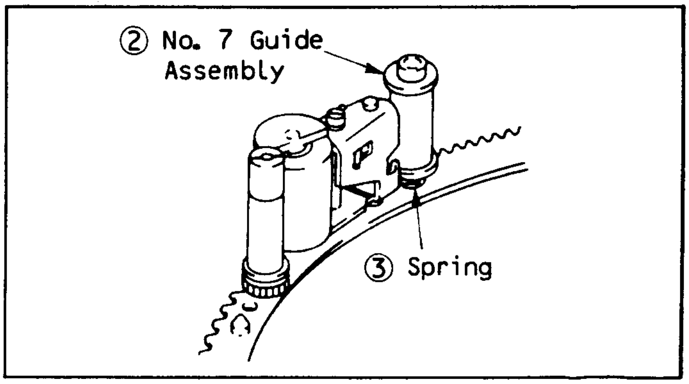

② No. 7 Guide Assembly
③ Spring

Fig. 2-28

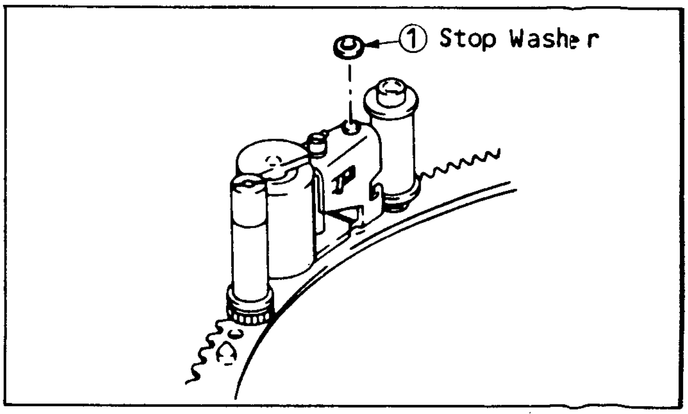

① Stop Washer

Fig. 2-29

2-5-9. Slant Guide Chassis Assembly

1. Removal
1) Set up the EJECT mode and raise the cassette compartment assembly.
2) Remove the loading ring assembly as instructed in 2-5-7.
3) Remove the screw ① and E ring ②.
4) Remove the slant guide chassis assembly ③. (See Fig. 2-30.)

2. Remounting
1) Operate the mode selector and align the righthand edge of the L slider and that of the lock slider. (See Fig. 2-31.)
2) Set the guide base assembly of the slant guide chassis assembly in an unloading condition and remount it. (See Fig. 2-32.)
3) Refit the E ring ② and tighten the screw ①. (See Fig. 2-30.)
4) Set to Condition 1) of 1. Removal in 2-5-7.
5) Remount the loading ring assembly as instructed in 2-5-7.
6) Lower the cassette compartment assembly.

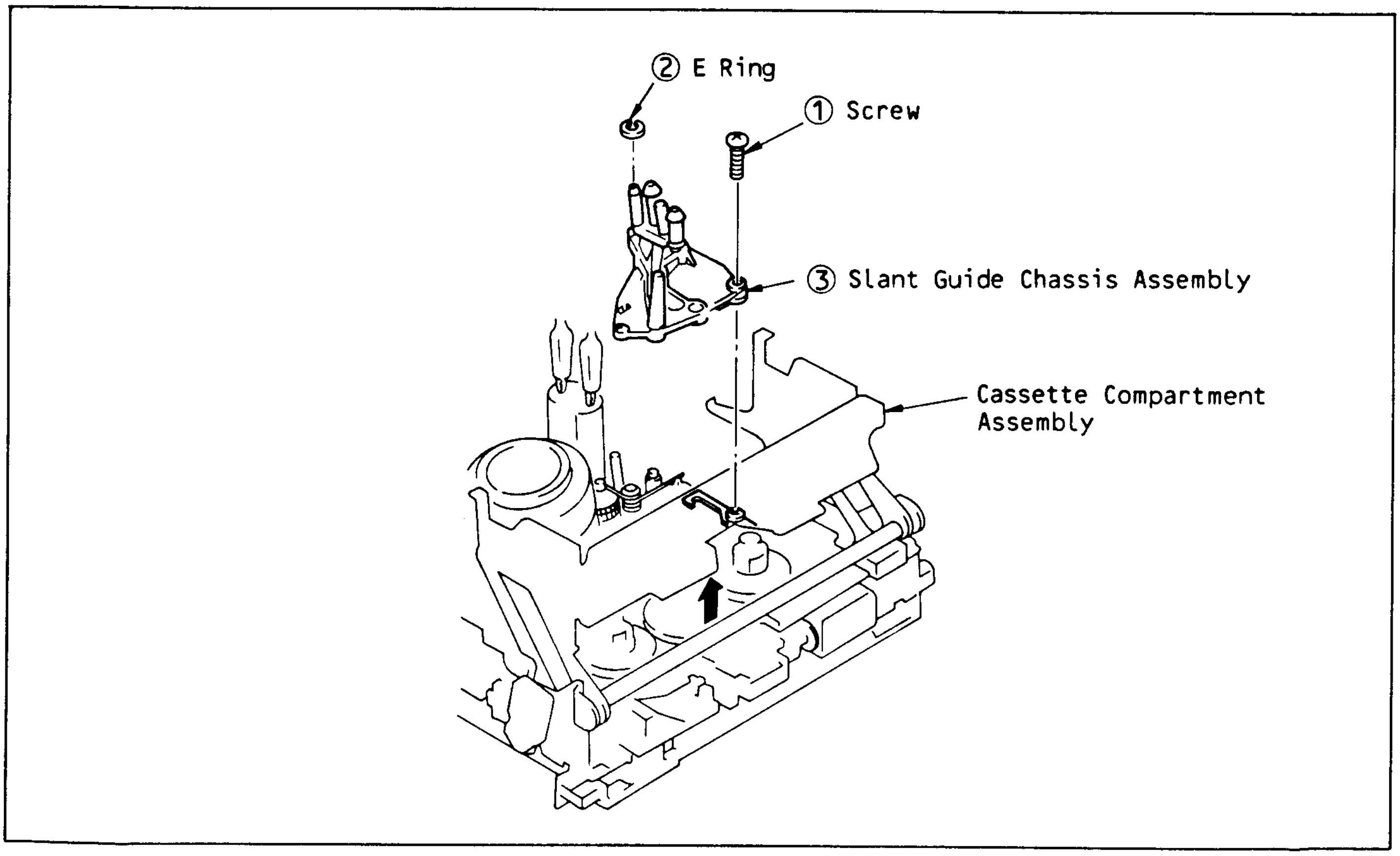

② E Ring
① Screw
③ Slant Guide Chassis Assembly
Cassette Compartment Assembly

Fig. 2-30

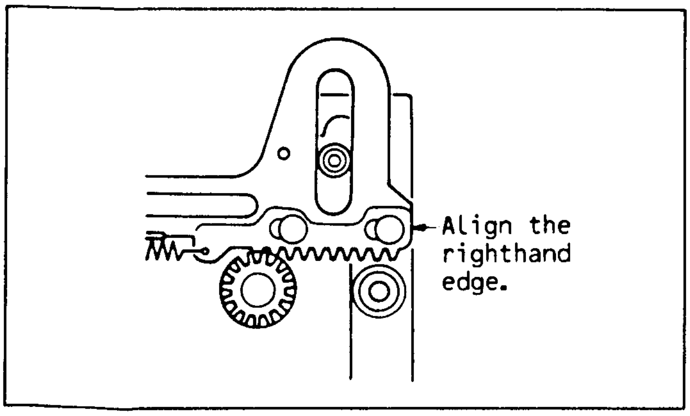

Align the righthand edge.

Fig. 2-31

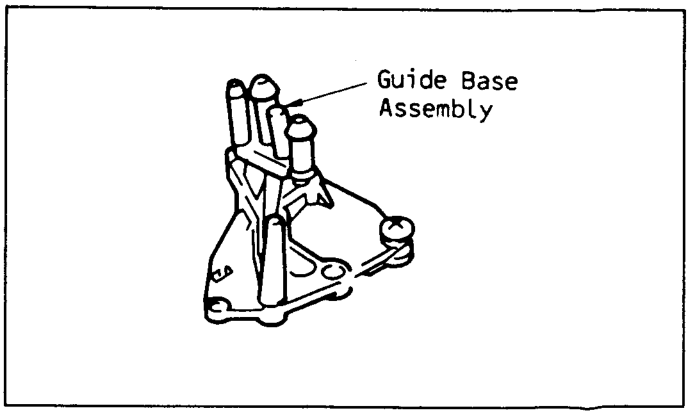

Guide Base Assembly

Fig. 2-32

2-5-10. No. 2 Guide Assembly

1. Removal
1) Rotate the rotary upper drum counter-clockwise so that the head does not contact.
2) Remove the drum guard screw ①.
3) Remove the screw ②.
4) Remove the guide nut ③ of the No. 3 guide, as well as the guide flange ④, guide ⑤ and compression spring ⑥.
5) Remove the No. 2 guide ⑦. (See Fig. 2-33.)

2. Remounting
1) Mesh the toothless part Ⓐ of the toothed wheel under the No.2 guide assembly and that Ⓑ of the L slider.
2) Remount the compression spring ⑥, guide ⑤, and guide flange ④ in this order and tighten the guide nut ③ temporarily.
3) Tighten the screw ②.
4) Tighten the drum guard screw ①.

Note: Be sure to adjust the tape path as instructed in 2-6 after remounting.

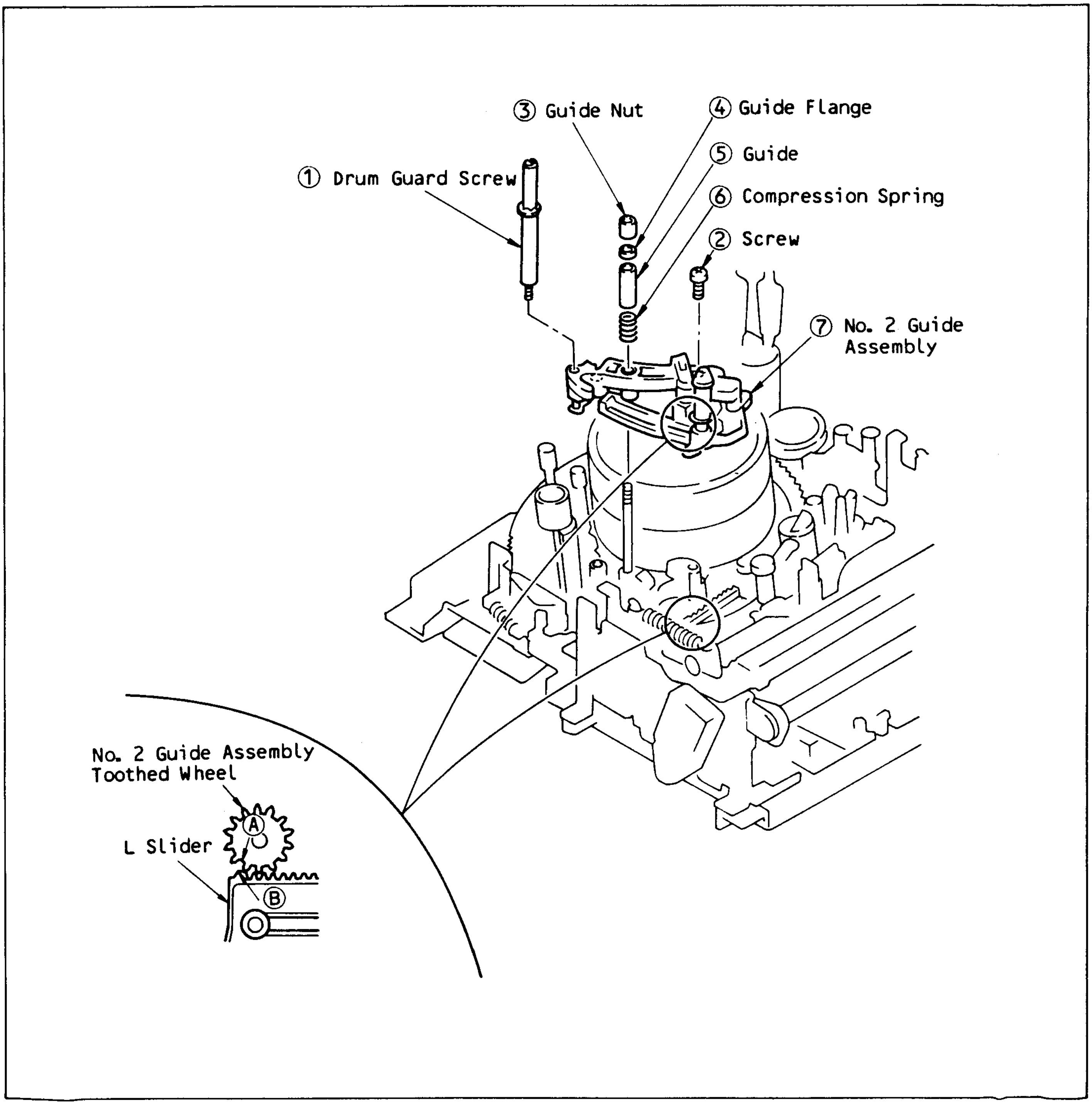

③ Guide Nut
④ Guide Flange
⑤ Guide
① Drum Guard Screw
⑥ Compression Spring
② Screw
⑦ No. 2 Guide Assembly
No. 2 Guide Assembly Toothed Wheel
Ⓐ
L Slider
Ⓑ

Fig. 2-33

2-5-11. L Slider Assembly

1. Removal
1) Remove the slant guide chassis assembly as instructed in 2-5-9.
2) Remove the No.2 guide assembly as instructed in 2-5-10.
3) Set up the DRUM START mode.
4) Remove the slant guide driving gear ①.
5) Remove the pin of the tension regulator load arm assembly ② from the cam groove of the tension regulator arm assembly. (Refer to 2-5-4 Tension regulator arm assembly.)
6) Remove the two stop washers ③.
7) Remove the L slider assembly ⑤ pushing the RL arm assembly lug ④ toward the arrow Ⓐ.
8) Remove the stop washer ⑥ and tension regulator load arm assembly ②. (See Fig. 2-34.)

2. Remounting
1) Grease the parts. (See Fig. 2-35.)
2) Remount the tension regulator load arm assembly ② and stop washer ⑥. (See Fig. 2-34.)
3) Remount the L slider assembly ⑤ pushing the RL arm assembly lug ④ toward the arrow Ⓐ.
4) Refit the two stop washers ③.
5) Reinsert the pin of the tension regulator load arm assembly ② into the groove of the M slider. (Refer to 2-5-15 M Slider.)
6) Reinsert the pin of the tension regulator load arm assembly ② in the cam groove of the tension regulator arm assembly referring to 2) of 2. Remounting in 2-5-4. (Refer to 2-5-4 Tension regulator arm assembly.)
7) Operate the mode selector and align the righthand edges of the L slider and lock slider. (Refer to 1) of 2. Remounting in 2-5-9.)
8) Mesh the notch of the slant guide drive gear with the tooth at the lefthand edge of the L slider assembly by sliding one tooth. (See Fig. 2-36.)
9) Remount the No.2 guide assembly in accordance with 2-5-10.
10) Remount the slant guide chassis assembly as instructed in 2-5-9.

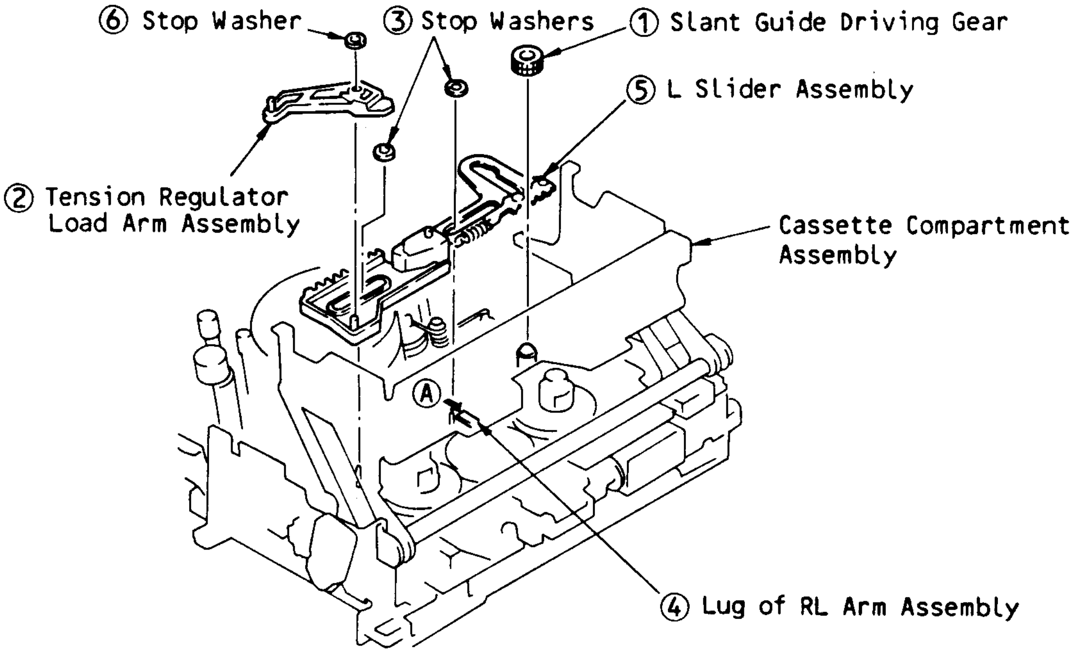

⑥ Stop Washer
③ Stop Washers
① Slant Guide Driving Gear
⑤ L Slider Assembly
② Tension Regulator Load Arm Assembly
Cassette Compartment Assembly
Ⓐ
④ Lug of RL Arm Assembly

Fig. 2-34

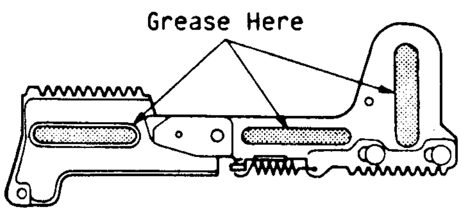

Grease Here

Fig. 2-35

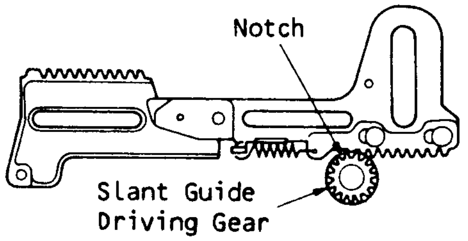

Notch
Slant Guide Driving Gear

Fig. 2-36

2-5-12. L-SW Assembly

1. Removal
1) Remove the L slider assembly as instructed in 2-5-11.
2) Remove the lock slider retainer ①.
3) Remove the screw ② and lock slider ③.
4) Remove the stop washer ④ and spring ⑤.
5) Remove the drive changer assembly ⑥.
6) Remove the connector ⑦.
7) Remove the two screws ⑧ and L-SW assembly ⑨. (See Fig. 2-37.)

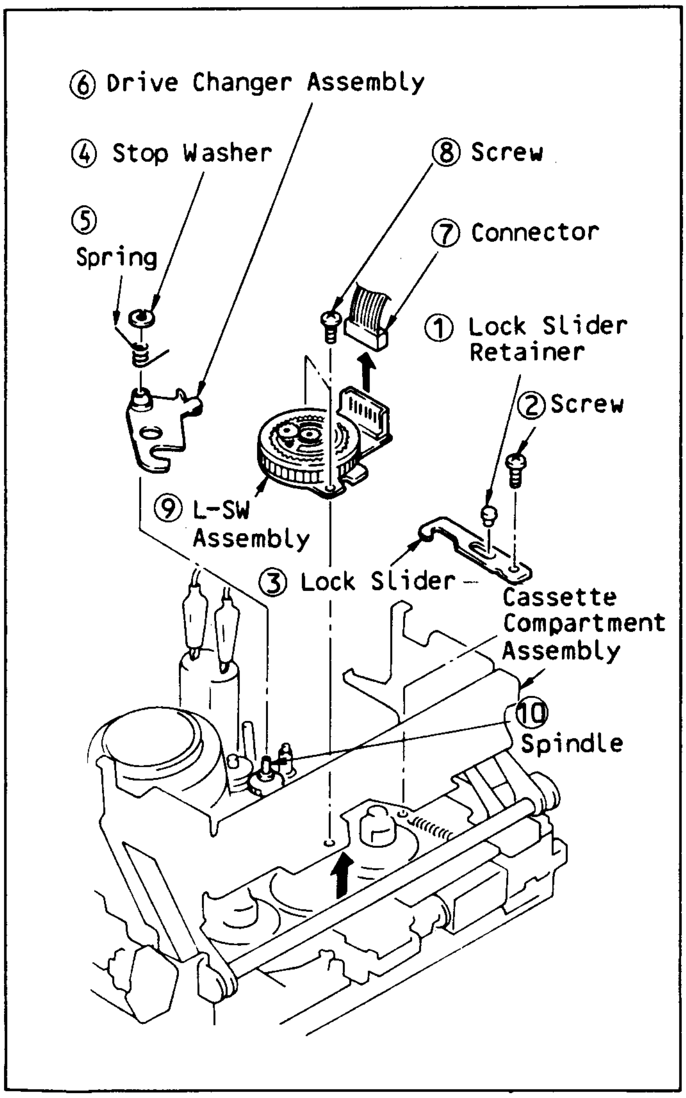

⑥ Drive Changer Assembly
④ Stop Washer
⑤ Spring
⑧ Screw
⑦ Connector
① Lock Slider Retainer
② Screw
⑨ L-SW Assembly
③ Lock Slider
Cassette Compartment Assembly
⑩ Spindle

Fig. 2-37

2. Remounting
1) Oil harf drop of oil on the spindle (planetary roller spindle) of the L-SW assembly ⑨.
2) Remount the L-SW assembly ⑨ and tighten two screws ⑧.
3) Reconnect the connector ⑦.
4) Operate the mode selector and check that the L-SW assembly ⑨ rotates.
5) Oil half a drop of oil on the spindle ⑩.
6) Grease the drive changer assembly ⑥. (See Fig. 2-38.)
7) Remount the drive changer assembly ⑥. (See Fig. 2-37.)
8) Rehook the spring ⑤ and refit the stop washer ④.
9) Operate the mode selector and check that the L-SW assembly ⑨ rotates.
10) Remount the lock slider ③ and tighten the screw ②.
11) Remount the lock slider retainer ①. (See Fig. 2-37.)
12) Operate the mode selector and set in the position shown in Fig. 2-39.
13) Remount the L slider assembly as instructed in 2-5-11.

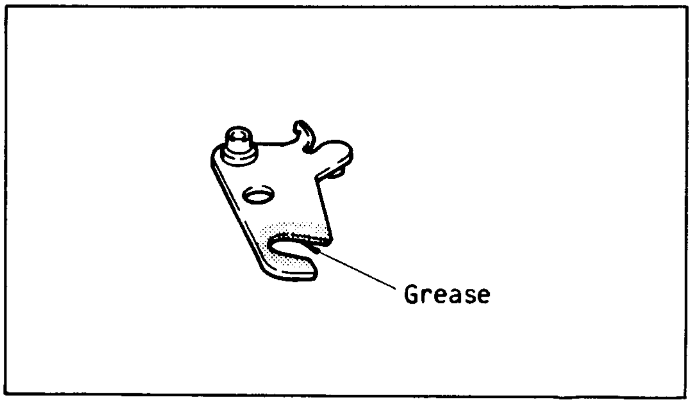


Fig. 2-38

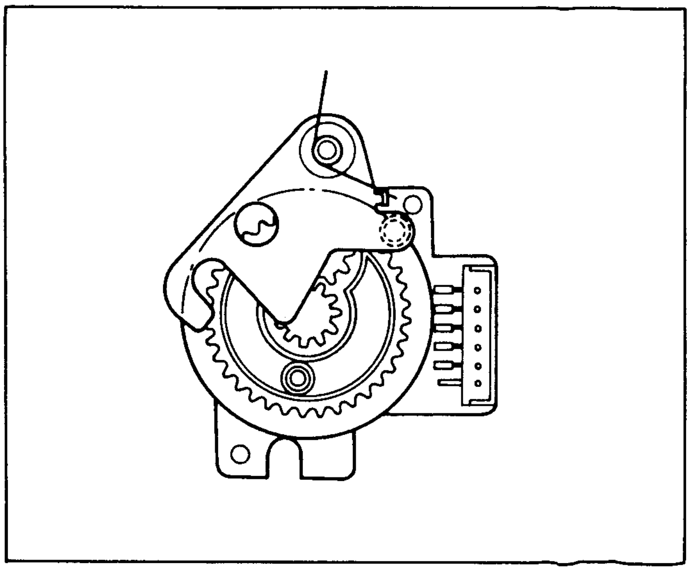


Fig. 2-39

2-5-13. Plunger Solenoid

1. Removal
1) Remove the cassette compartment assembly as instructed in 2-1.
2) Remove the spring ①.
3) Remove two stop washers ②.
4) Remove the screw ③ and lock slider ④.
5) Remove two screws ⑤ and the plunger solenoid ⑥. (Be careful not to inflict scars on the T reel table by a screwdriver. Do not touch the table.) (See Fig. 2-40.)

2. Remounting
1) Reinsert the pin ⑦ of the plunger solenoid in the P arm hole ⑧ and tighten two screws ⑤. (Be careful not to inflict scars on the T reel table by a screwdriver or touch it.)
2) Remount the lock slider ④ and tighten the screw ③.
3) Refit the two stop washers ②.
4) Refit the spring ①. (See Fig. 2-40.)
5) Remount the cassette compartment assembly in accordance with 2-1.

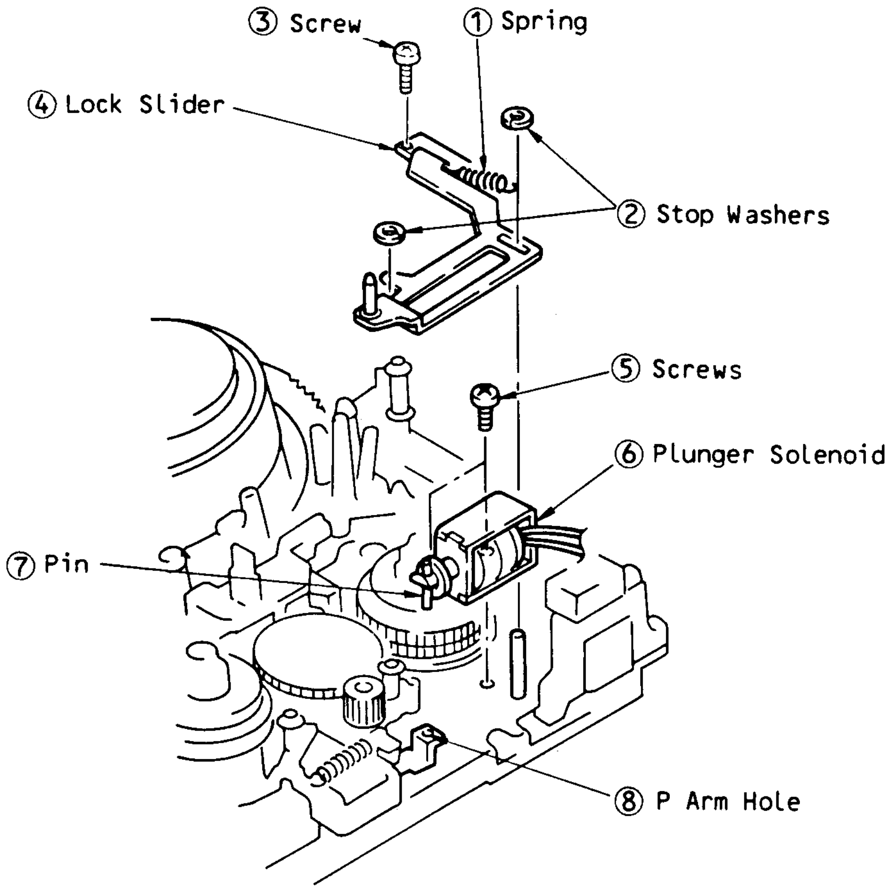

③ Screw
① Spring
④ Lock Slider
② Stop Washers
⑤ Screws
⑥ Plunger Solenoid
⑦ Pin
⑧ P Arm Hole

Fig. 2-40

2-5-14. M-SW Assembly

1. Removal

1) Remove the T reel table assembly as instructed in 2-5-2.
2) Remove the stop washer ① and drive gear (B) assembly ②.
3) Remove the LED assembly ③. (See Fig. 2-41.)
4) Remove the lock slider as instructed in 3), 4), and 5) of 1. Removal in 2-5-13.
5) Remove the spring ④ and B release arm assembly ⑤.
6) Check that the EJECT mode is set up.
7) Remove the stop washer ⑥ and mode output gear ⑦.
8) Remove the screw ⑧ and RECOG SW assembly ⑨.
9) Disconnect the connector ⑩.
10) Remove three screws ⑪, control motor cover ⑫ and M-SW assembly ⑬.
11) Remove solder Ⓐ and the control motor ⑭. (See Fig. 2-42.)

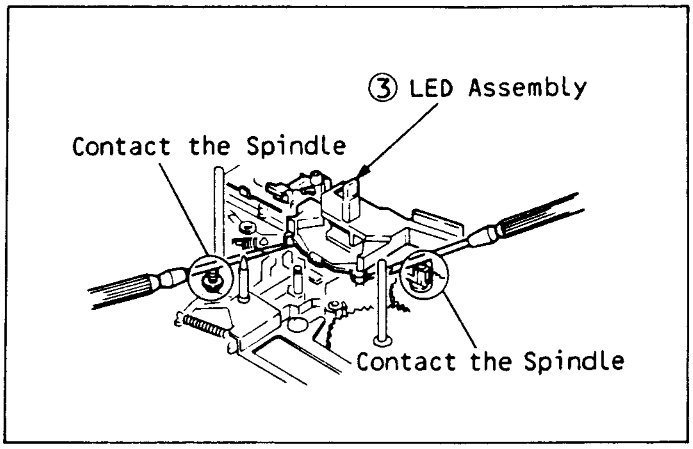

③ LED Assembly
Contact the Spindle
Contact the Spindle

Fig. 2-41

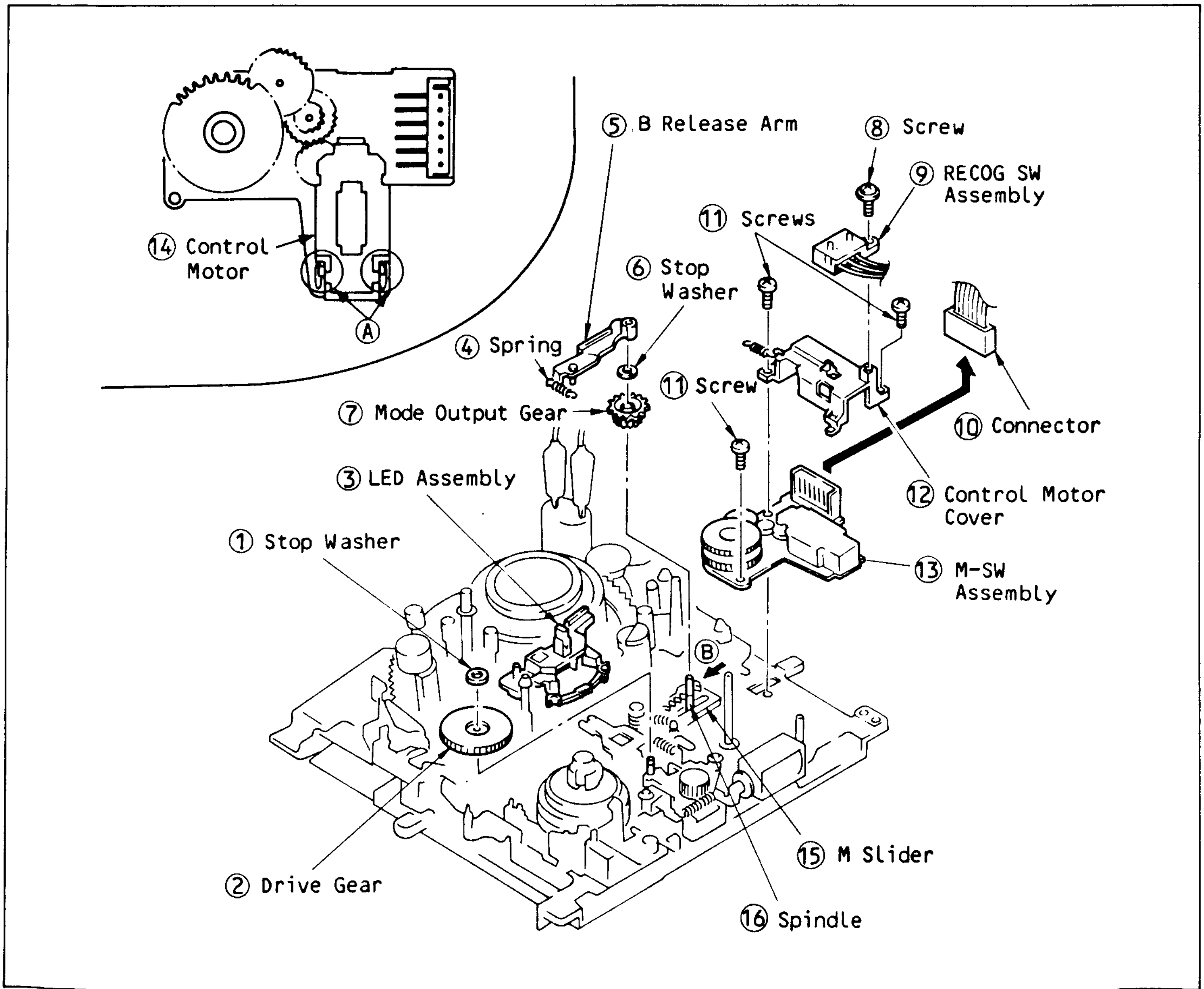

⑭ Control Motor
Ⓐ
⑤ B Release Arm
⑧ Screw
⑨ RECOG SW Assembly
⑪ Screws
⑥ Stop Washer
④ Spring
⑪ Screw
⑦ Mode Output Gear
⑩ Connector
③ LED Assembly
⑫ Control Motor Cover
① Stop Washer
⑬ M-SW Assembly
Ⓑ
⑮ M Slider
② Drive Gear
⑯ Spindle

Fig. 2-42

2. Remounting

1) Resolder the control motor ⑭.
2) Remount the M-SW assembly ⑬ and control motor cover ⑫ and tighten three screws ⑪.
3) Reconnect the connector ⑩.
4) Remount RECOG SW assembly ⑨ and tighten the screw ⑧.
5) Check that the EJECT mode is set up.
6) Check that the M slider ⑮ is moved toward the arrow Ⓑ fully.
7) Oil half a drop of oil on the spindle ⑯. (See Fig. 2-42.)
8) Remount the mode output gear ⑦ so that the alignment holes are liner. (See Fig. 2-43.)
9) Refit the stop washer ⑥.
10) Set to the LOADING/UNLOADING mode.
11) Remount the Ⓑ release arm assembly ⑤ and rehook the spring ④.
12) Remount the lock slider as instructed in 2), 3) and 4) of 2. Remounting in 2-5-13.
13) Remount the LED assembly ③.
14) Remount the drive gear (B) assembly ② and refit the stop washer ①. (See Fig. 2-42.)
15) Remount the T reel table assembly as instructed in 2-5-2.

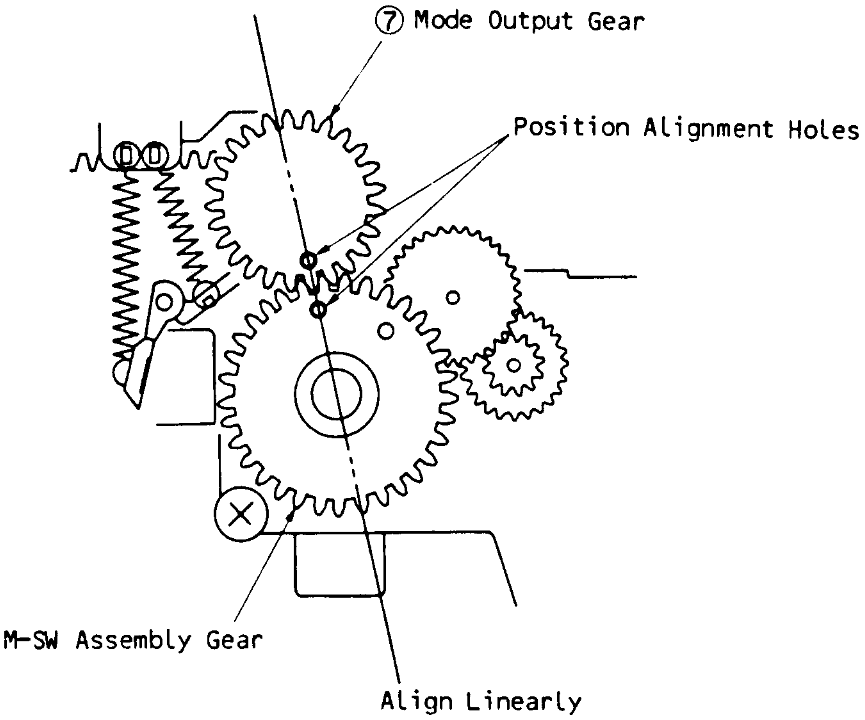


Fig. 2-43

2-5-15. M Slider

1. Removal

1) Open the SV-1 Board as instructed in 2. Removal and remove the timing belt ①.
2) Remove the pinch press arm assembly as instructed in 2-5-3.
3) Remove the tension regulator arm assembly as instructed in 2-5-4.
4) Remove the tension regulator band assembly as instructed in 2-5-5.
5) Remove the loading ring assembly as instructed in 2-5-7.
6) Perform Steps 1) to 6) of 2-5-14.
7) Remove the tension regulator load arm assembly as instructed in 8) of 1. Removal in 2-5-11.
8) Remove the spring ②.
9) Remove two stop washers ③. S main brake assembly ④ and T main brake assembly ⑤.
10) Set up the LOADING TOP and LOADING/UNLOADING modes.
11) Remove two screws ⑥ and the driving arm complete assembly ⑦.
12) Perform Steps 7) and 8) of 1. Removal in 2-5-14.
13) Remove two springs ⑧.
14) Remove the REW brake assembly ⑨.
15) Remove the stop washer ⑩ and B release slider ⑪.
16) Remove the RVS arm ⑫.
17) Remove the stop washer ⑬, spring ⑭, and RL arm ⑮.
18) Move the M slider ⑯ toward the right (leave appr 5mm on the left).
19) Remove the E ring ⑰ and pinch press lever assembly ⑱.
20) Remove the spring ⑲ and S hard brake ⑳.
21) Remove the stop washer ㉑, push the mode arm ㉒ toward the arrow Ⓐ, then remove the M slider ⑯ by lifting the lefthand side of the M slider ⑯. (See Fig. 2-44.)

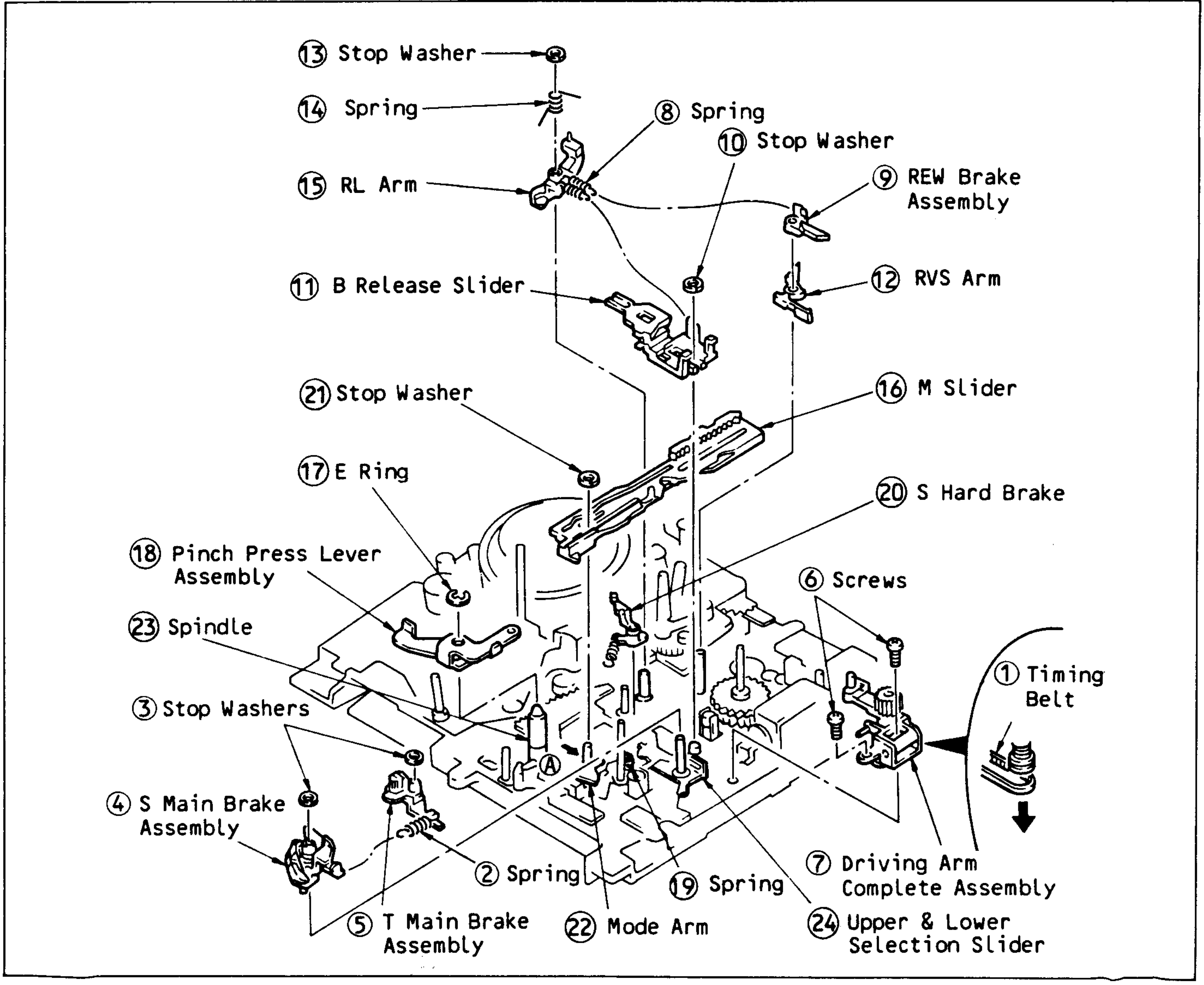

⑬ Stop Washer
⑭ Spring
⑧ Spring
⑩ Stop Washer
⑨ REW Brake Assembly
⑮ RL Arm
⑪ B Release Slider
⑫ RVS Arm
㉑ Stop Washer
⑯ M Slider
⑰ E Ring
⑳ S Hard Brake
⑱ Pinch Press Lever Assembly
⑥ Screws
㉓ Spindle
① Timing Belt
③ Stop Washers
Ⓐ
④ S Main Brake Assembly
② Spring
⑲ Spring
⑦ Driving Arm Complete Assembly
⑤ T Main Brake Assembly
㉒ Mode Arm
㉔ Upper & Lower Selection Slider

Fig. 2-44

2. Remounting

1) Grease the slider. (See Fig. 2-45)
2) Push the mode arm ㉒ in the arrow Ⓐ direction, remount the M slider ⑯ referring to Fig. 2-46 and paying attention to the vertical position relationship with other portions of the slider, and refit the sop washer ㉑ . (See Fig. 2-44.)
3) Remount the S hard brake ⑳ and rehook the spring ⑲ .
4) Grease as shown in Fig. 2-47.
5) Oil half a drop of oil on the parts below the spindle ㉓ groove, mount the pinch press lever assembly ⑱ , and refit the E ring ⑰ .
6) Remount the RL arm ⑮ , rehook the spring ⑭ , and refit the stop washer ⑬ .
7) Remount the RVS arm ⑫ .
8) Remount the B release slider ⑪ and refit the stop washer ⑩ .
9) Remount the REW brake assembly ⑨ .
10) Rehook two springs ⑧ .

Note: Rehook two springs as noted below so as not to misplace them.
The spring for the B release slider
outside diam: 2mm, wire diam: 0.18mm
The spring for the REW ass'y
outside diam: 1.6mm, wire diam: 0.12mm

11) Move the M slider ⑯ fully to the left.
12) Perform Steps 7), 8) and 9) of 2. Remounting in 2-5-14.
13) Set up the LOADING/UNLOADING mode.
14) Insert the horizontal spindle of the driving arm complete assembly ⑦ in the groove of the upper & lower selection slider ㉔ , insert the lug of the RVS arm ⑫ in the dented part of the driving arm complete assembly ⑦ , and tighten two screws ⑥ .
15) Remount the T main brake assembly ⑤ and S main brake assembly ④, refit two each stop washers ③, and refit the spring ②. (See Fig. 2-44.)
16) Remount the tension regulator load arm assembly as instructed in 2) of 2. Remounting in 2-5-11.
17) Perform Steps 11) to 16) of 2. Remounting in 2-5-14.
18) Remount the loading ring assembly as instructed in 2-5-7.
19) Remount the tension regulator band assembly as instructed in 2-5-5.
20) Remount the tension regulator arm assembly as instructed in 2-5-4.
21) Remount the pinch press arm assembly as instructed in 2-5-3.
22) Remount the timing belt ① referring to 2. Removal.

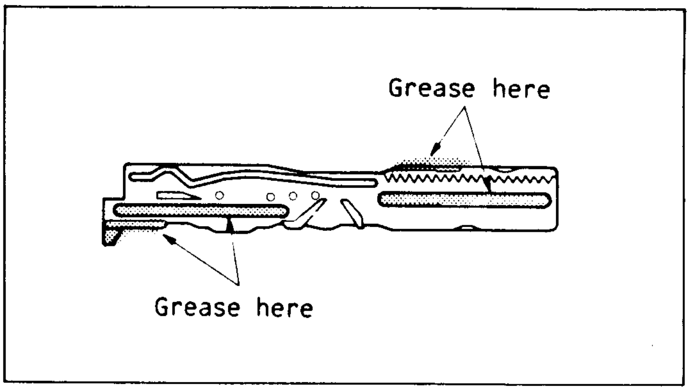


Fig. 2-45

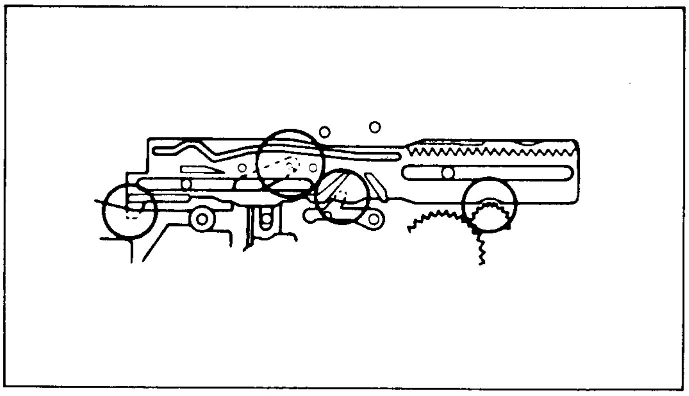


Fig. 2-46

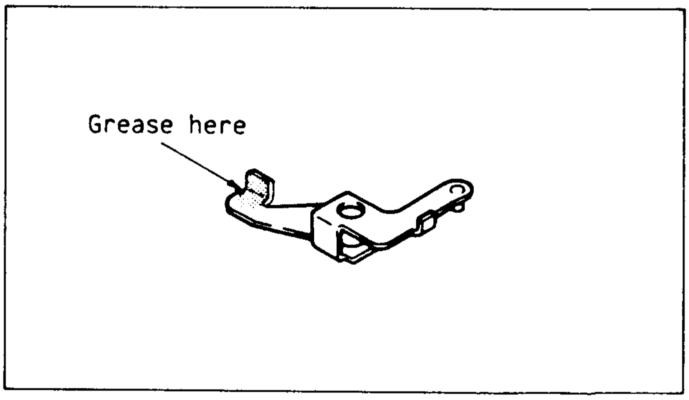


Fig. 2-47

2-5-16. Capstan Motor

1. Removal

1) Remove the loading ring assembly as instructed in 2-5-7.
2) Open the SV-1 Board as instructed in 2. Removal and turn the set upside down.
3) Remove the screw ①.
4) Remove the timing belt ②.

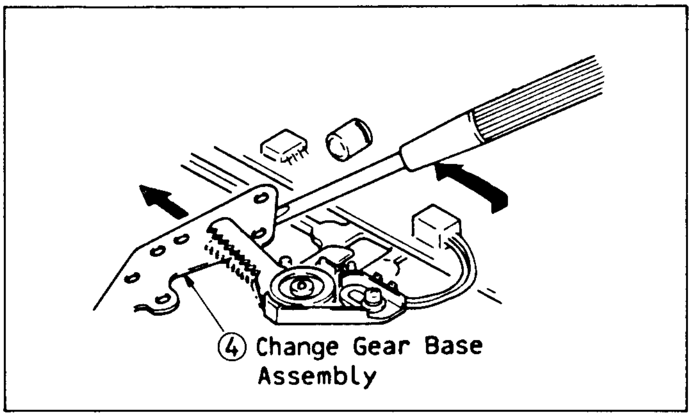

④ Change Gear Base Assembly

Fig. 2-48

5) Remove the screw ③ and the change gear base assembly ④ using a screwdriver. (See Fig. 2-48 and 49.)
6) Remove two screws ⑤ and capstan motor ⑥ as shown by the arrow Ⓐ. (See Fig. 2-49.)

2. Remounting

1) Remount the capstan motor ⑥ and tighten two screws ⑤.
2) Remount the change gear base assembly ④ and tighten the screw ③.
3) Re-place the timing belt ②.
4) Tighten the screw ①. (See Fig. 2-49.)
5) Re-place the set in its forward position.
6) Remount the loading ring assembly as instructed in 2-5-7.

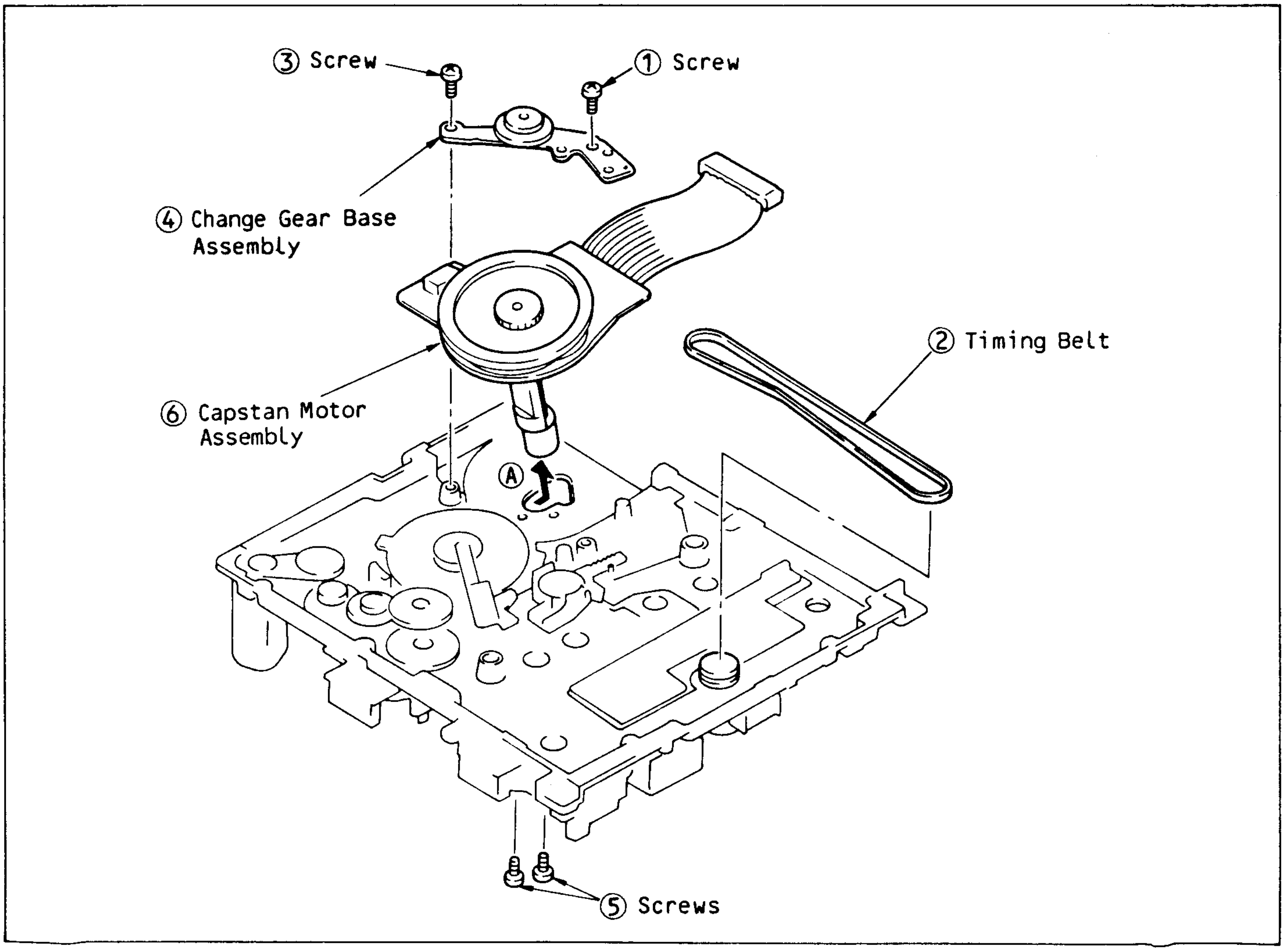

③ Screw
① Screw
④ Change Gear Base Assembly
② Timing Belt
⑥ Capstan Motor Assembly
Ⓐ
⑤ Screws

Fig. 2-49

2-5-17. Rotary Upper Drum Replacement

1. Removal

1) Remove two hexagon socket screws ① and dismount the dynamic damper ②.
2) Suction solder at all of the soldered eight positions Ⓐ. Check that the printed wiring board and pins jutting out from below freely move using tweezers, or other tool. (See Fig. 2-50.)
3) Remove the two hexagon socket screws ③. (See Fig. 2-50.)
4) Install the jig Ⓑ (Ref. No. J-10) with the included screws ④ to the holes where the dynamic damper was installed, and install the included hexagon socket screw ⑤ to the jig (B); then remove the rotary upper drum ⑥.
(Refer to Fig. 2-51.)

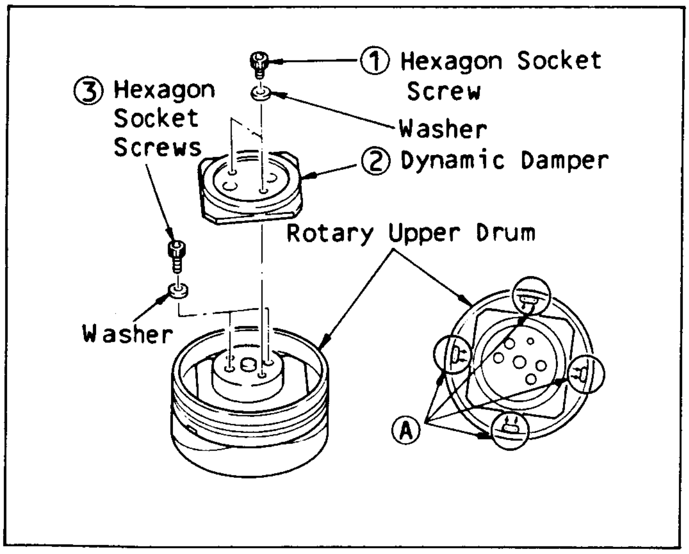

① Hexagon Socket Screw
③ Hexagon Socket Screws
Washer
② Dynamic Damper
Rotary Upper Drum
Washer
Ⓐ

Fig. 2-50

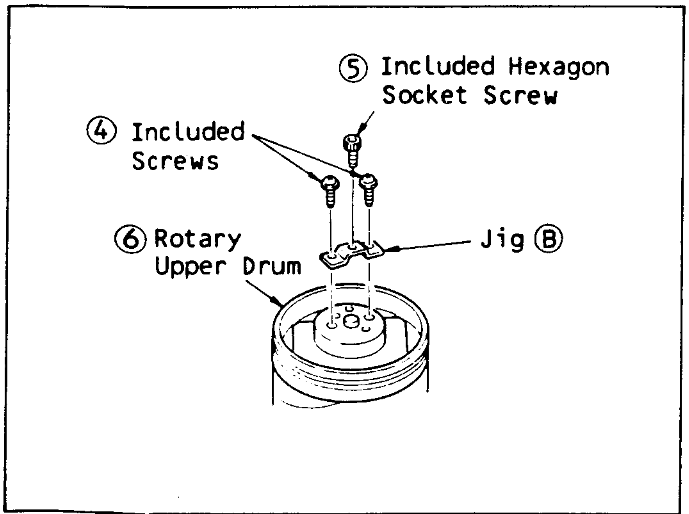

⑤ Included Hexagon Socket Screw
④ Included Screws
⑥ Rotary Upper Drum
Jig Ⓑ

Fig. 2-51

2. Remounting

1) Carefully clean the flange surfaces and planes of the rotary upper drum and visually check that no blemishes or flaws are left.
2) Insert Jig Ⓒ (Ref. No. J-10) in the positioning hole Ⓓ so that the holes of the rotary upper drum ⑥ and flange coincide. Lightly insert the rotary upper drum in the drum shaft while aligning their positions. Check that pins are projecting above the holes on the printed circuit board of the rotary upper drum. When the pins are caught, correct using tweezers, etc. (See Fig. 2-52.)
3) Remove Jig Ⓒ, lightly push the rotary upper drum by hands. (See Fig. 2-53.) If the rotary upper drum does not go in to the bottom, alternately tighten the two hexagon socket screws ③ and temporarily fix them.
4) Reinsert the Jig Ⓒ in the positioning hole D and check that the jig can be inserted smoothly. When the jig cannot be inserted, loosen the two hexagon socket screws ③ and slide it inserting a clock screwdriver in the hole.
5) Tighten the two hexagon socket screws ③.

Note: Do not tighten too strongly.

6) Solder the pins Ⓐ. (See Fig. 2-50.)

Note: Be careful not to flow solder below the printed wiring board.

7) Remount the dynamic damper ② with the two hexagon socket screws ①. (See Fig. 2-50.)

Note: Do not tighten too strongly.

Note: Be sure to adjust the tape path as instructed in 2-6 after remounting.

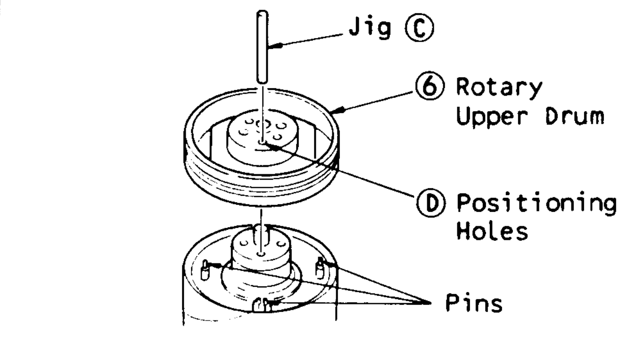

Jig Ⓒ
⑥ Rotary Upper Drum
Ⓓ Positioning Holes
Pins

Fig. 2-52

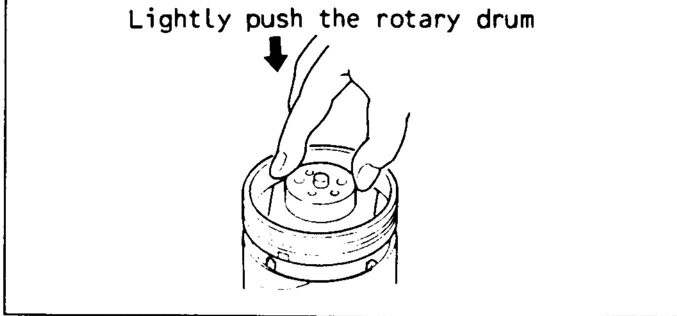

Lightly push the rotary drum

Fig. 2-53

2-5-18. Drum Assembly Replacement

1. Removal
1) Open the SV-1 Board as instructed in 2. Removal.
2) Remove the screw ① and shaft ground terminal ②. (See Fig. 2-54.)
3) Remove two screws ③.
4) Remove the drum assembly ④. (See Fig. 2-55.)

2. Remounting
1) Remount the drum assembly ④ and tighten two screws ③.
2) Remount the shaft ground terminal ② and tighten the screw ①. (See Fig. 2-54.)

Note: Be sure to adjust the tape path as instructed in 2-6 after remounting.
Be careful not to touch the head chip portion.

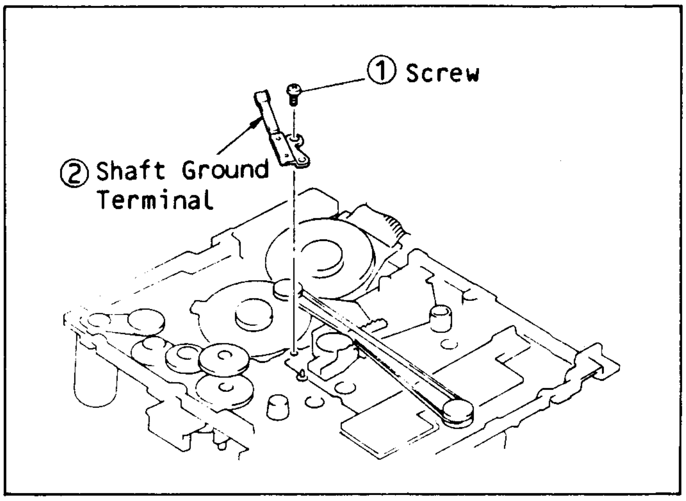


Fig. 2-54

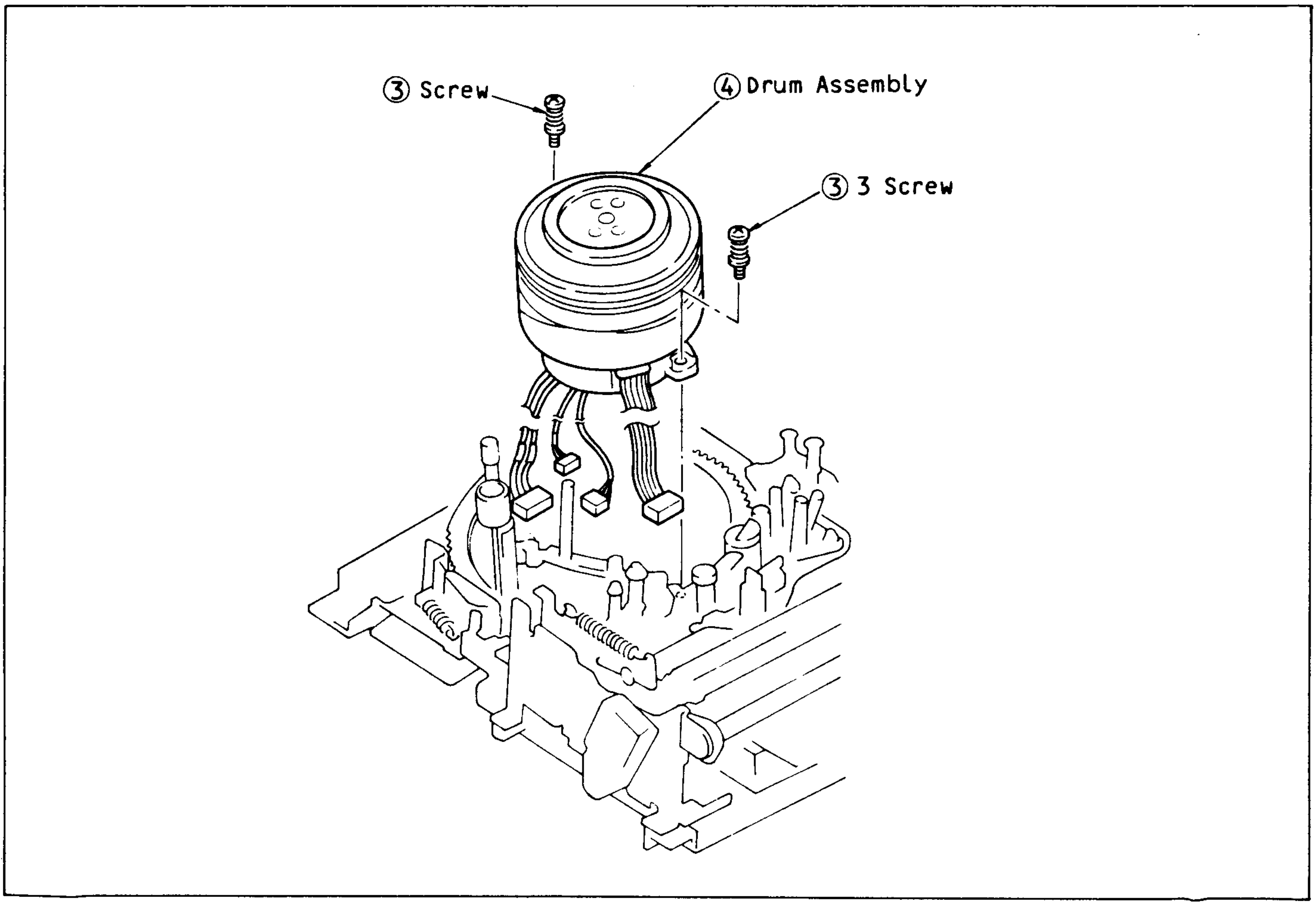


Fig. 2-55

2-5-19. Adjustment After Replacing No.3 and 4 Guides

Run the tape on the upper flanges for both No.3 and 4 guides after replacing them. (See Fig. 2-90.)

2-5-20. No.5 Guide Assembly

1. Removal
1) Remove three screws ① and No.5 guide assembly. (See Fig. 2-56.)

2. Remounting
1) Remount the No.5 guide assembly and tighten three screws ① . (See Fig. 2-56.)

Note: Be sure to adjust the tape path as instructed in 2-6 after remounting.

2-5-21. FWD Back Tension Adjustment

1) Set to the LOADING END FWD mode (PLAY mode).
2) Loosen the screw ② of the band adjustment plate ① .
3) Slide the band adjustment plate ① in the direction of arrow Ⓐ so that the tension regulator arm ③ will move to a position slightly (0.5 - 0.8mm) away from the tension regulator spring attachment plate ④ , and then tighten the screw ② . (See Fig. 2-57.)
4) Using FWD, RVS take-up torque cassette J-12 (GD-2086), set to the REC mode (PLAY mode if tape is recorded); then attach the spring ⑤ as described below to the tension regulator spring attachment plate ④ so that the take-up torque of the S reel table becomes 10 +1 gcm. (See Fig. 2-57.)

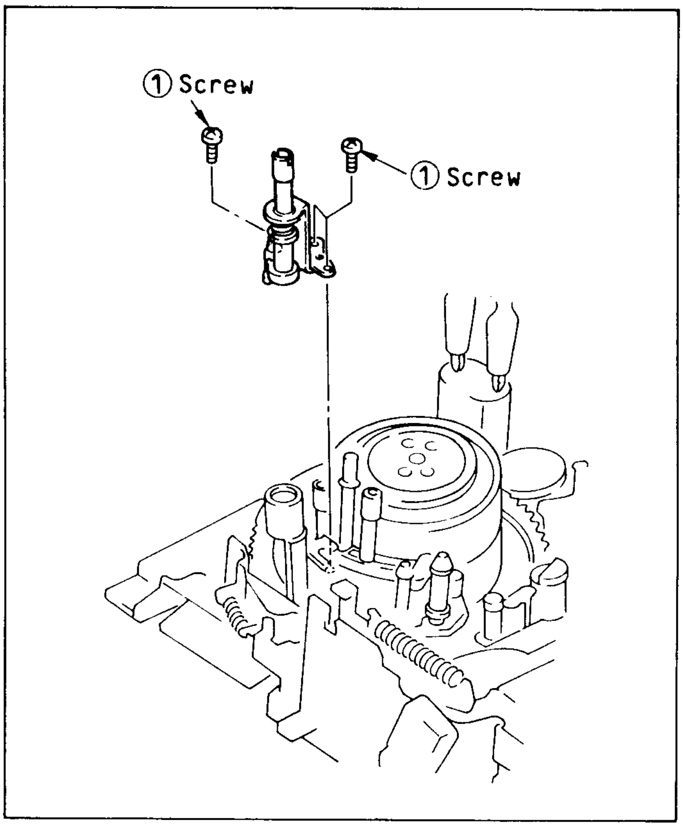

① Screw
① Screw

Fig. 2-56

Greater than rated value
..... arrow Ⓑ direction
Less than rated value
..... arrow Ⓒ direction

Note: Be sure to make this adjustment when the tension regulator band is replaced.

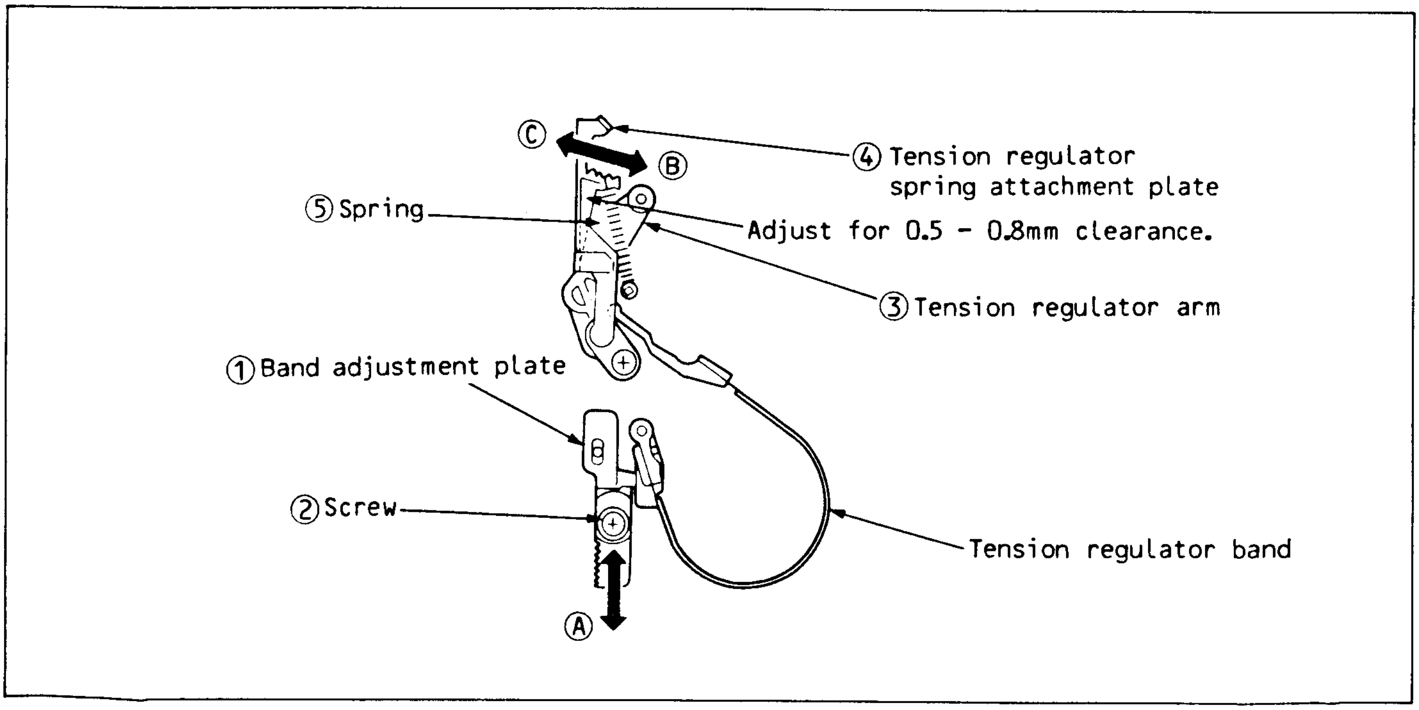

Ⓒ
Ⓑ
④ Tension regulator spring attachment plate
⑤ Spring
Adjust for 0.5 - 0.8mm clearance.
③ Tension regulator arm
① Band adjustment plate
② Screw
Tension regulator band
Ⓐ

Fig. 2-57

2-5-22. Timing Belt Tension Check and Adjustment

1) Use vinyl tape or similar material to cover the LED light receptor for tape-end detection (on the OT-1 circuit board) and activate the loading.
2) Short-circuit TP3002 and TP3003 (on the SY-1 circuit board). (Refer to Fig. 2-58.)
3) Loosen the screw ①; then slide the idler assembly in the direction of the arrow Ⓐ until the belt is at its loosest position, and then secure. (Refer to Fig. 2-59.)
4) Press in the accidental-erase-prevention pin of the RECOG switch and stop it by the tape, etc.; then press the REC button down to activate the REC mode. (Refer to Fig. 2-60.)
5) Connect an analog meter to both ends of resistance R4118 (on the SV-1 circuit board), and measure the voltage (Vo) (Refer to Fig. 2-61.)
6) Loosen the screw ①; then slide the idler assembly in the direction of the arrow Ⓑ, secure, and measure the voltage (V).
   Check to be sure that voltage (V) is 2.2mV to 3.3mV higher than voltage (Vo).
   If it isn't, repeat step 6).

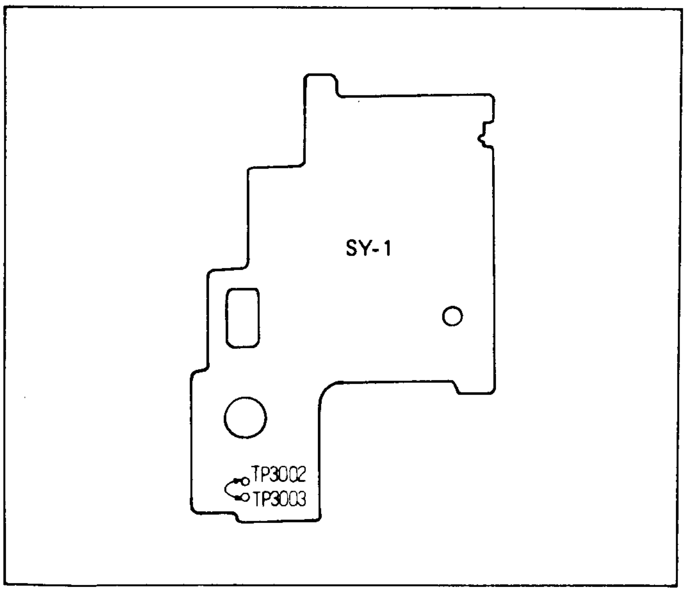


Fig. 2-58

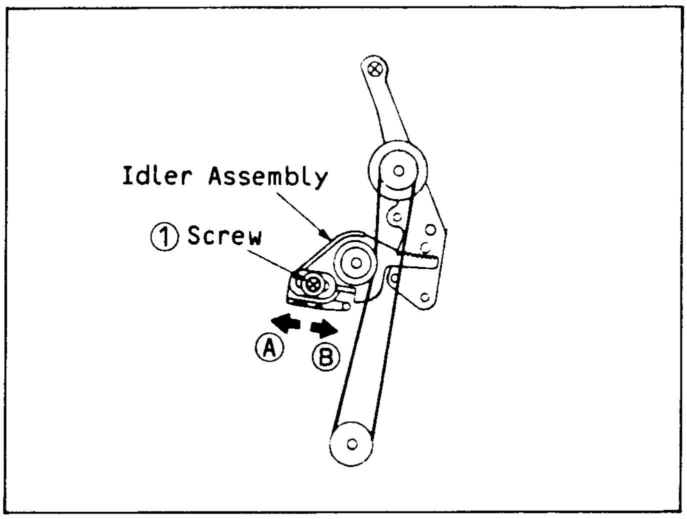


Fig. 2-59

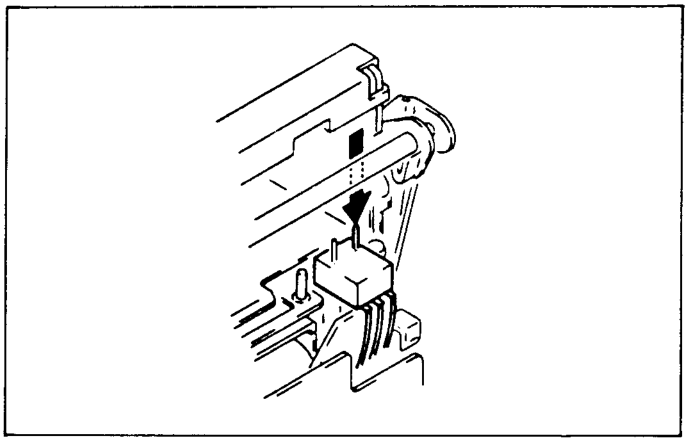


Fig. 2-60

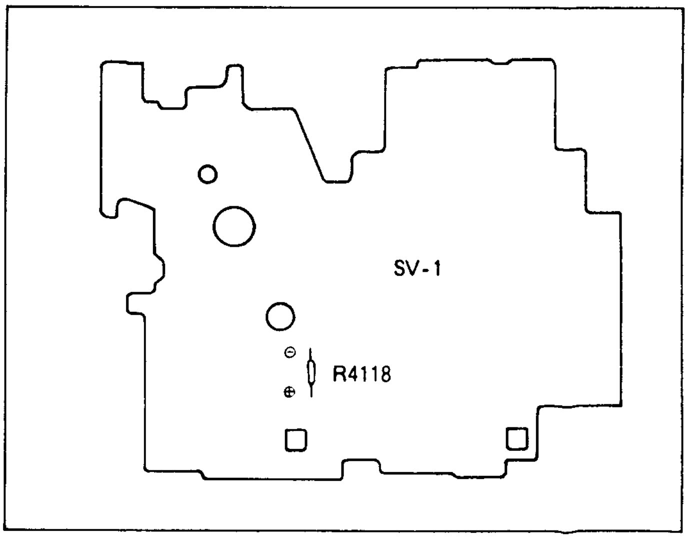


Fig. 2-61

2-5-23. Checking S and T Main Brake Torques

1. S main brake torque
1) Set up the FF/REW mode.
2) Place the tension measuring reel (Ref. No. J-8) on the S reel table.
3) Pull the dial tension gauge (Ref. No. J-6) toward the arrow and check that the value satisfies the required value. (See Fig. 2-62 and 63.)

2. T main brake torque
1) Set up the FF/REW mode.
2) Place the tension measuring reel (Ref. No. J-8) on the T reel table.
3) Pull the dial tension gauge (Ref. No. J-6) toward the arrow and check that the value satisfies the required value. (See Fig. 2-64 and 65.)

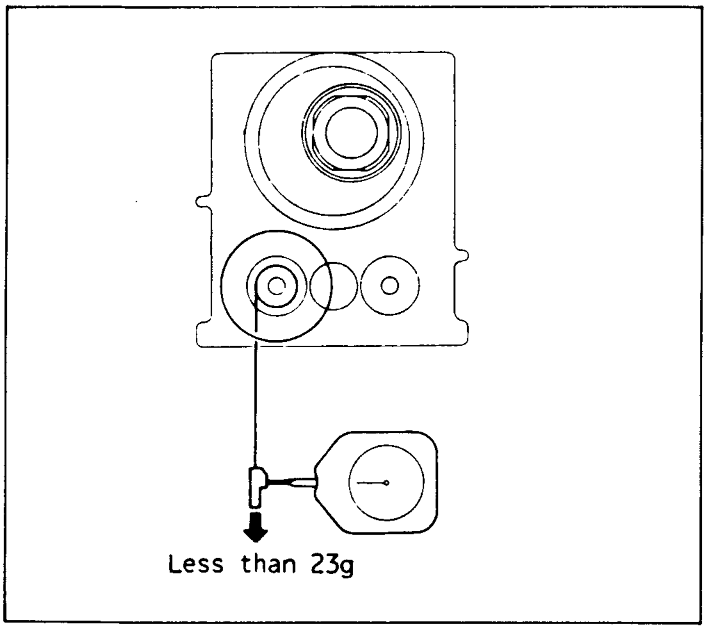


Fig. 2-62

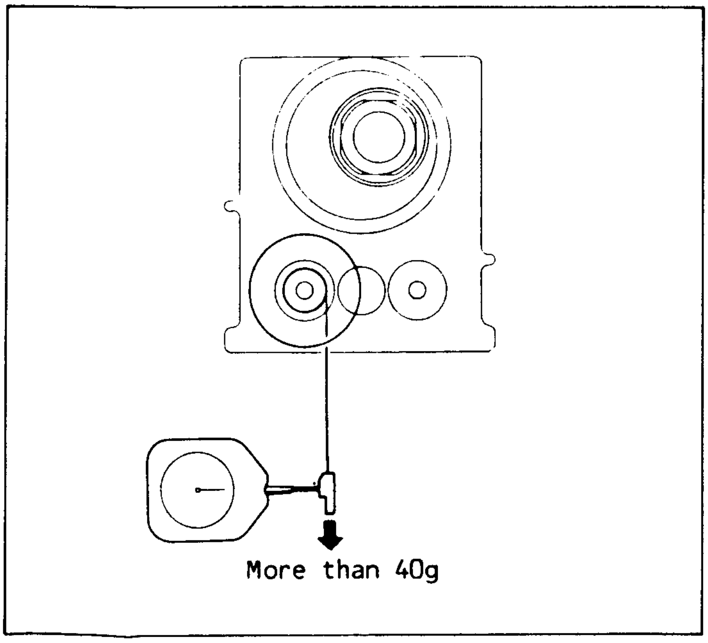


Fig.2-63

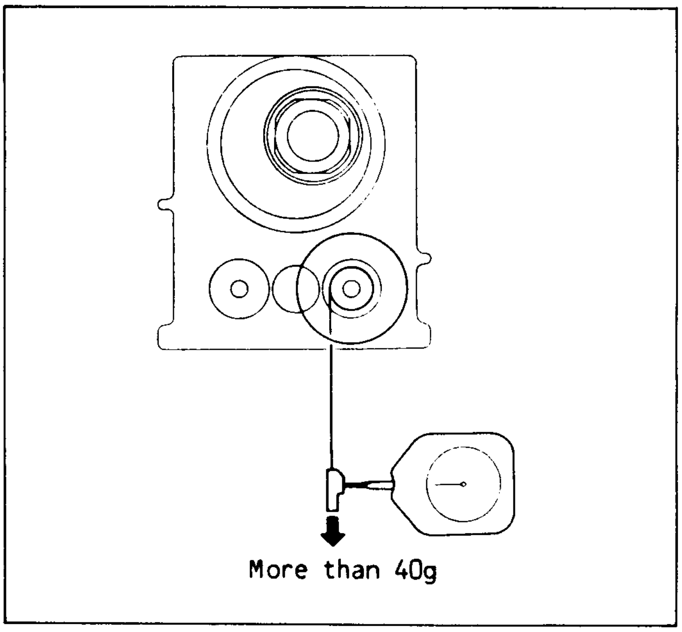


Fig. 2-64

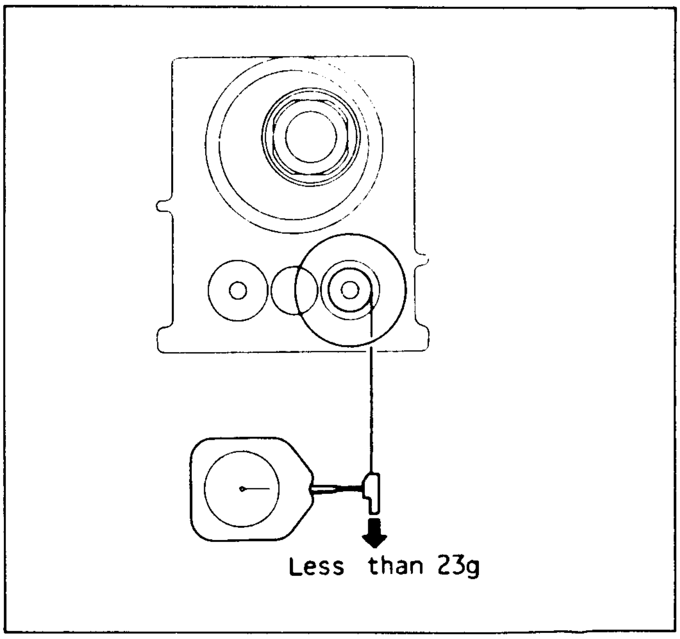


Fig. 2-65

2-5-24. Checking S and T Soft Brake Torques

1. S soft brake torque
1) Set up the FF/REW mode.
2) Place the tension measuring reel (Ref. No. J-8) on the S reel table.
3) Release the S main brake with a finger.
4) Pull the dial tension gauge (Ref. No. J-6) toward the arrow and check that the value satisfies the required value. (See Fig. 2-66.)

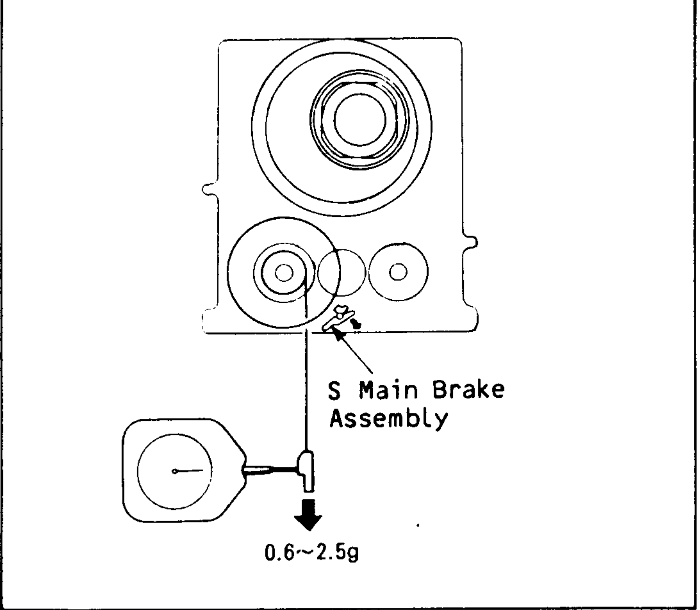


Fig. 2-66

2. T soft brake torque
1) Set up the REV mode.
2) Place the tension measuring reel (Ref. No. J-8) on the T reel table.
3) Release the T main brake with a finger.
4) Pull the dial tension gauge (Ref. No. J-6) toward the arrow and check that the value satisfies the required value. (See Fig. 2-67.)

Note: In the REV mode, both the T soft brake and REV brake are engaged.

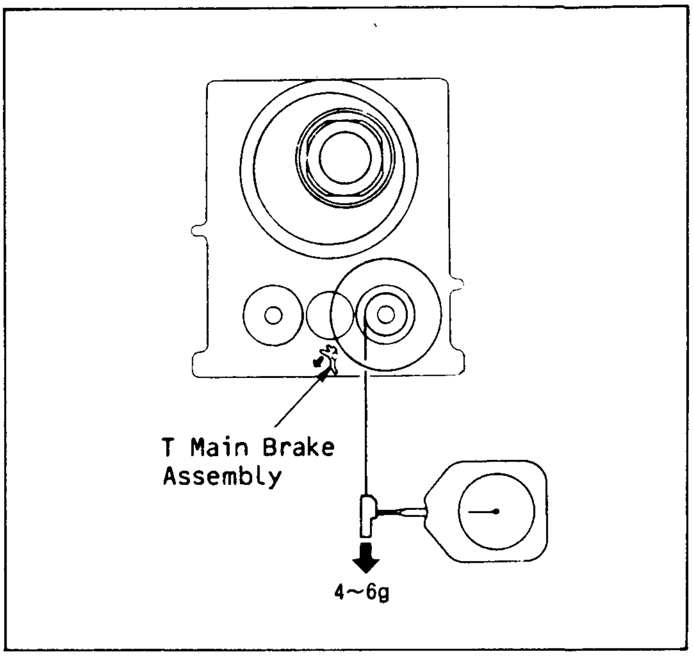


Fig. 2-67

2-5-25. Checking REV and REW Brake Torques

1. REV brake torque
1) Set up the REV mode.
2) Place the tension measuring reel (Ref. No. J-8) on the S reel table.
3) Release the S main brake assembly with a finger.
4) Pull the dial tension gauge (Ref. No. J-6) toward the arrow and check that the value satisfies the required value. (See Fig. 2-68.)

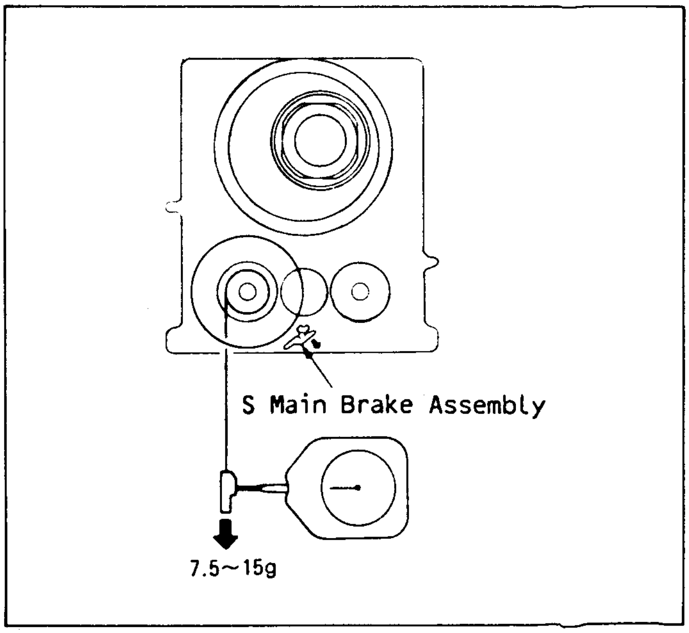


Fig. 2-68

2. REW brake torque

1) Set up the FF/REW mode.
2) Place the tension measuring reel (Ref. No. J-8) on the T reel table.
3) Pull the dial tension gauge (Ref. No. J-6) toward the arrow and check that the value satisfies the required value. (See Fig. 2-69.)

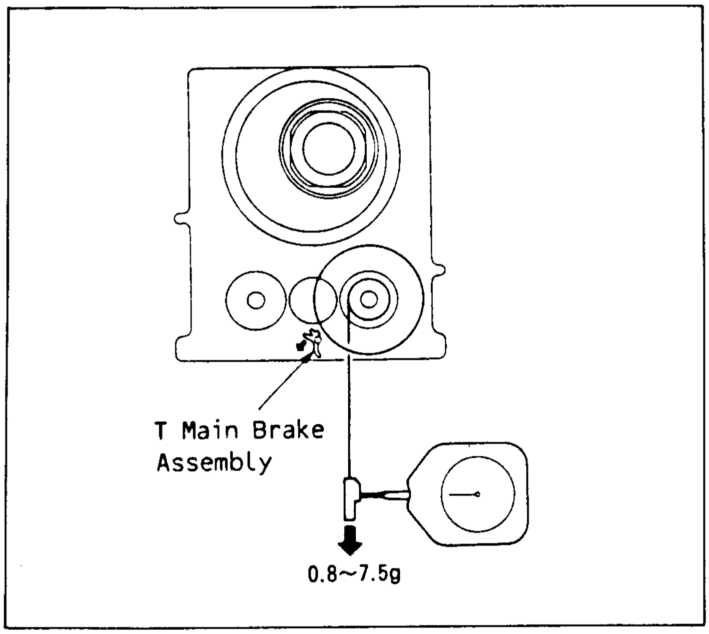


Fig. 2-69

2-5-26. Checking by FWD and RVS Take-Up Torque Cassette

1) Set the FWD and RVS take-up torque cassette (Ref. No. J-12).
2) Set up the PLAY BACK mode and check that the torque value on the T reel table side is 9.5 to 15.5g cm.
3) Set up the PLAY BACK mode and check that the torque value on the S reel table side immeciately after pressing the REW button is 17 to 23g·cm.
4) Replace the reel tables if the foregoing values are not satisfied.

2-6. TAPE PATH ADJUSTMENT

* Make tape path adjustment after checking that electrical adjustment is made.

[Track Shift and Monitor Jig]

8 mm video systems use ATF (automatic tracking finding) for instantaneous control of the tape travel speed based on four pilot signals and high precision tracking. This eliminates the need for tracking adjustment knobs and provides an accurate trace.

On the other hand however, adjustment of the tape path system can be difficult with this ATF system. This is because complete adjustment is not possible as the automatic correction is made by ATF even if the head trace is slightly off.

For this reason, the track shift and monitor jig (Ref No. J-14) is used for adjustment of the tape path system. The track shift and monitor jig forcibly releases the ATF and allows precise adjustment of the tape path system as the tracking amount (track shift) can be set manually.

2-6-1. Preparation for Adjustment

1) Clean the parts on which the tape runs (tape guide, drum, capstan spindle and pinch roller).
2) Connect the track shift and monitor jig (Ref. No. J-14) to CN1002 on the VD-1 circuit board. (Refer to Fig. 2-70.)
3) Connect the oscilloscope as shown in Fig. 2-70.

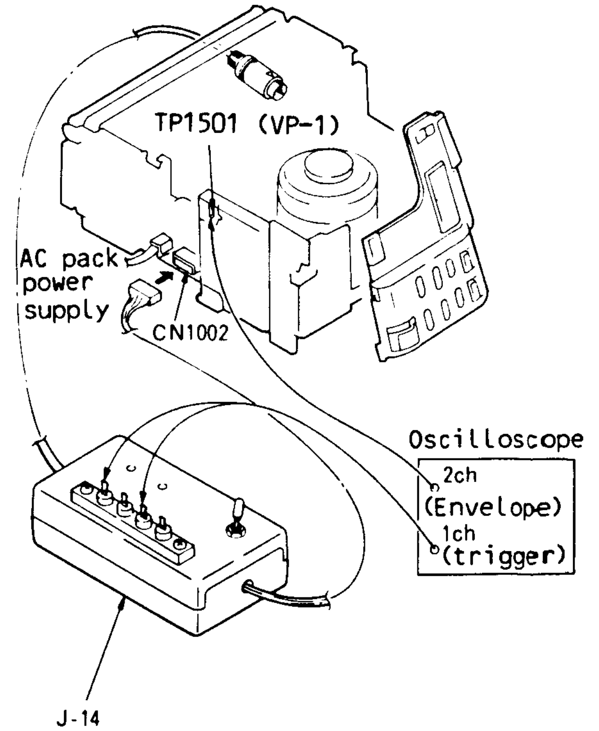
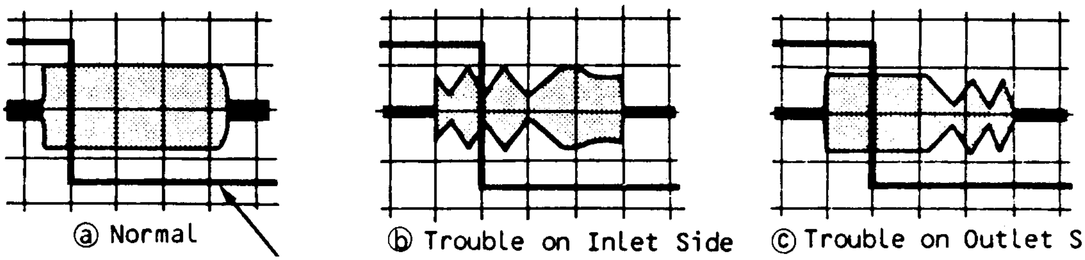


Fig. 2-70

4) After making sure that the ATF lock switch of the track shift and monitor jig (Ref. No.J-14) is ON, replay the tracking alignment tape (WR5-1C) and check that the RF waveforms are flat (Fig. 2-71 Ⓐ) on the inlet and outlet sides. If not, adjust as follows.
   - * If RF waveform on inlet side is not flat. (Fig. 2-71 ⓑ)....
     Adjust as instructed in 2-6-4. Tracking Fine Adjustment after adjusting according to 2-6-2. Inlet Side Rough Adjustment.
   - * If RF waveform on outlet side is not flat. (Fig. 2-71 ⓒ) ....
     Adjust as instructed in 2-6-4. Tracking Fine Adjustment after adjusting according to 2-6-3. Outlet Side Rough Adjustment.


RF Switching Pulse

ⓐ Normal ⓑ Trouble on Inlet Side ⓒ Trouble on Outlet Side

Fig. 2-71

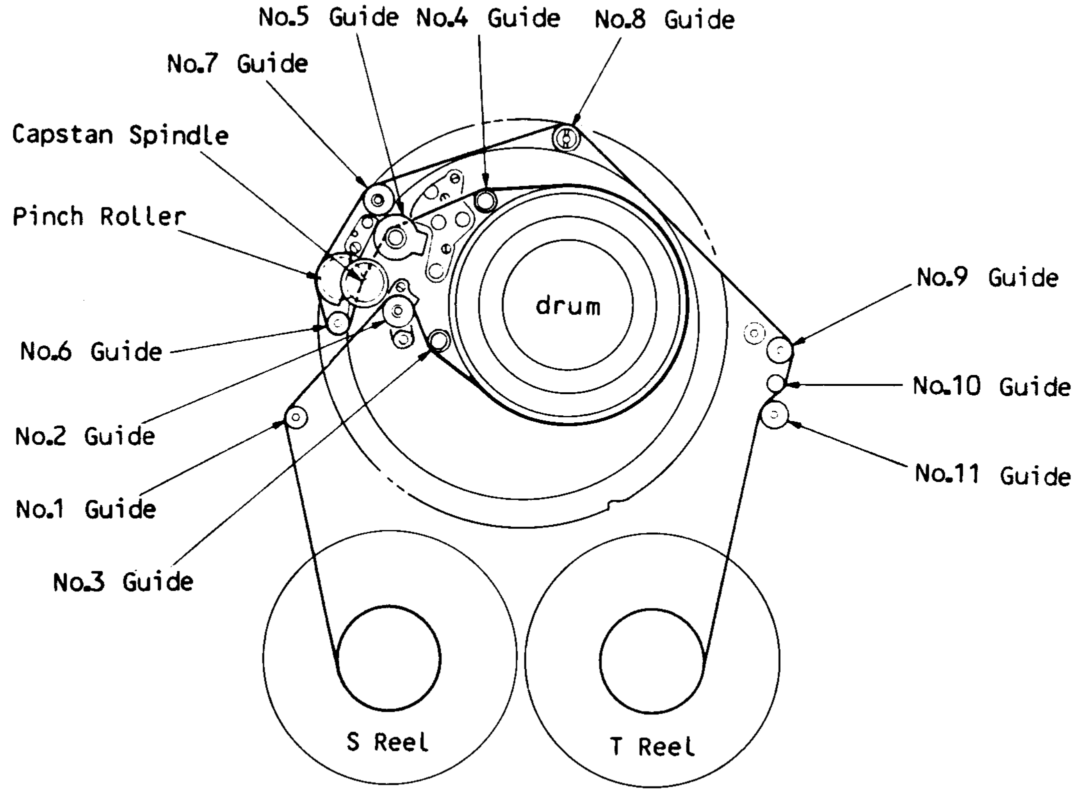

No.5 Guide
No.4 Guide
No.8 Guide
No.7 Guide
Capstan Spindle
Pinch Roller
No.6 Guide
No.2 Guide
No.1 Guide
No.3 Guide
drum
No.9 Guide
No.10 Guide
No.11 Guide
S Reel
T Reel

Fig. 2-72

2-6-2. Inlet Side Rough Adjustment

* This adjustment is made with the ATF lock switch of the track shift and monitor jig (Ref. No. J-14) ON.

1) Replay the tracking alignment tape, loose No.2 guide lock screw ①, rotate No.2 and 3 guides counterclockwise, and free the tape run on the inlet side. (See Fig. 2-73.)

Note: The space between the top and bottom flanges of No.2 guide is narrow. Check that the tape is contacting neither top nor bottom flanges this time. The tape contacts the bottom flange and the RF waveform on the inlet side will have more than two ridges if No.2 guide is too loose.

2) Check that the RF waveform on the inlet side has 0.5 to 2 ridges (PAL) in this condition. If not, adjust as follows. (See Fig. 2-74.)

Note: Do not touch the No.2 guide gate screw ② since it has been preset at the factory. If off standard, adjust the height adjustment screw of the No.1 guide (tension regulator assembly) by turning it clockwise 90° at a time. (See Fig. 2-75.)

3) Slowly rotate No.2 guide clockwise to make the inlet side waveform nearly flat. (See Fig. 2-76.)

Note: Do not rotate No.2 guide excessively.

4) Rotate No.3 guide clockwise to make the inlet side waveform completely flat. (See Fig. 2-77.)

5) Tighten No.2 lock screw①. (See Fig. 2-73.)

Note: As this is only the rough adjustment procedure, be sure to perform 2-6-4. Tracking Fine Adjustment after adjustment.

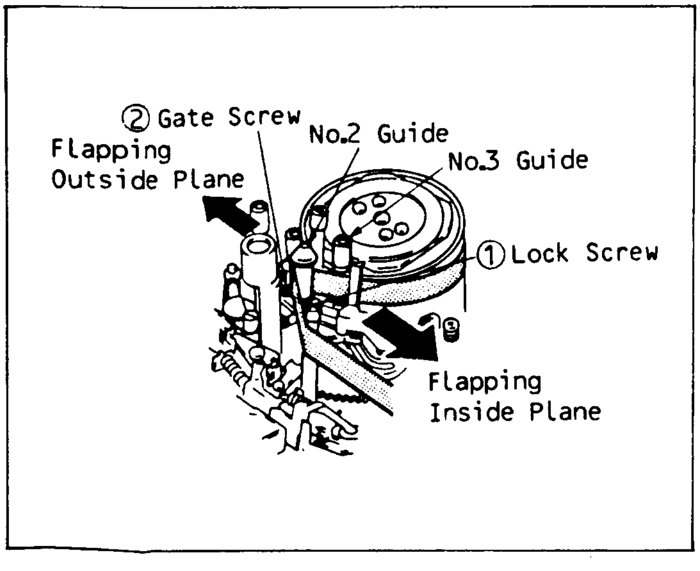

② Gate Screw
Flapping Outside Plane
No.2 Guide
No.3 Guide
① Lock Screw
Flapping Inside Plane

Fig. 2-73

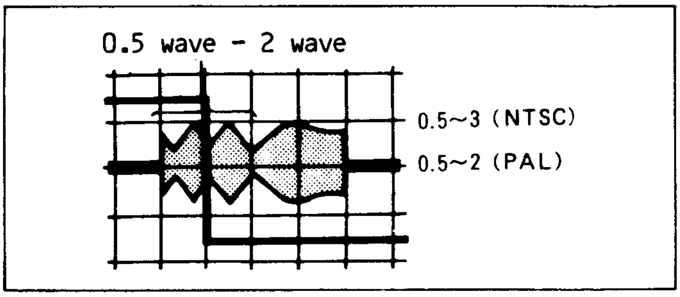

0.5 wave - 2 wave
0.5~3 (NTSC)
0.5~2 (PAL)

Fig. 2-74

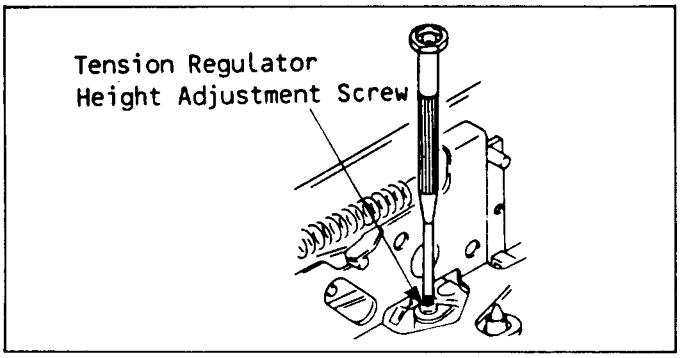

Tension Regulator
Height Adjustment Screw

Fig. 2-75

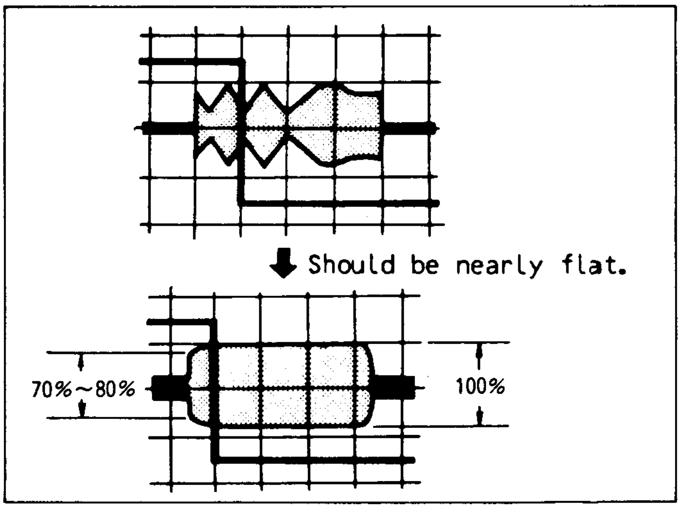

Should be nearly flat.
70%~80%
100%

Fig. 2-76

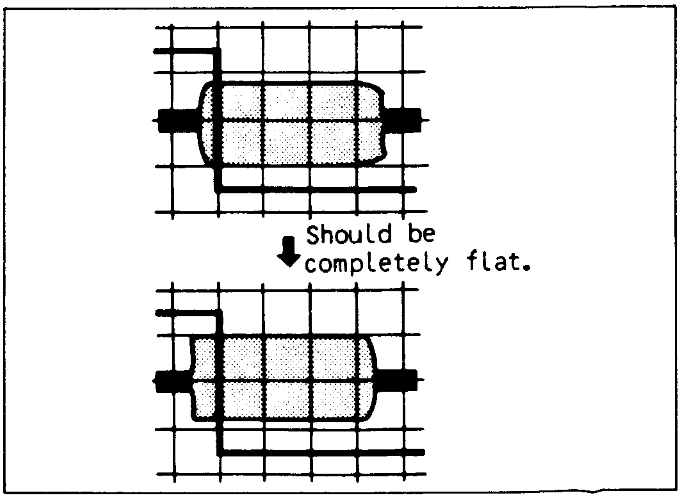

Should be completely flat.

Fig. 2-77

2-6-3. Outlet Side Rough Adjustment

* This adjustment is made with the ATF lock switch of the track shift and monitor jig (Ref. No. J-14) ON.

1) Play back the tracking alignment tape, rotate No.4 guide counterclockwise and No.5 guide clockwise, respectively, then the tape running on the outlet side. (See Fig. 2-78.)

Note: * A screw lock agent sticking No.5 guide nut may prevent the nut from rotating. Rotate the guide after immersing alcohol in the nut thread and dissolving the screw lock agent.
* Check that the tape is not contacting the top and bottom flanges of No.5 guide during free tape running.

2) Check that the RF waveform on the outlet side has 0.5 to 3 ridges (PAL). If not, readjust as follows. (See Fig. 2-79.)

If off standard

i) Rotate the lock screw ① counterclockwise to loosen.
ii) Slowly rotate the gate screw ② by 15° and wait until the RF waveform changes.
iii) Rotate the lock screw ① clockwise to tighten.

Note: * The waveform changes if the lock screw is tightened too tightly. Tighten moderately.
* Never rotate the azimuth screw of No.5 guide.

3) Rotate No. 5 guide counterclockwise slowly to make the RF waveform on the outlet side nearly flat. (See Fig. 2-80.)

Note: The waveform reaction is slow to nut rotation. Rotate the nut after the waveform variations are stabilized.

4) Rotate No.4 guide clockwise to make the RF waveform on the outlet side completely flat. (See Fig. 2-81.)

Note: As this is only the rough adjustment procedure, be sure to perform 2-6-4. Tracking Fine Adjustment after adjustment.

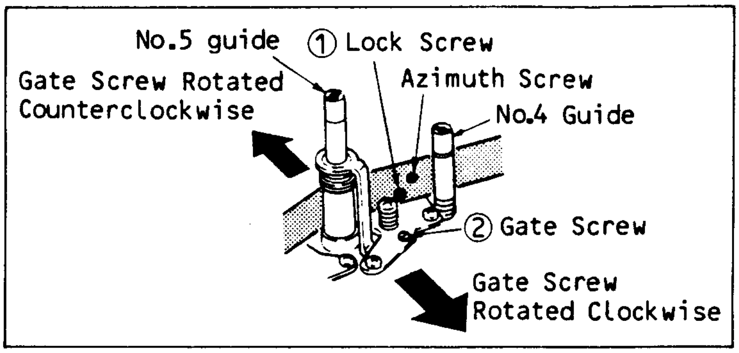

No.5 guide
① Lock Screw
Gate Screw Rotated Counterclockwise
Azimuth Screw
No.4 Guide
② Gate Screw
Gate Screw Rotated Clockwise

Fig. 2-78

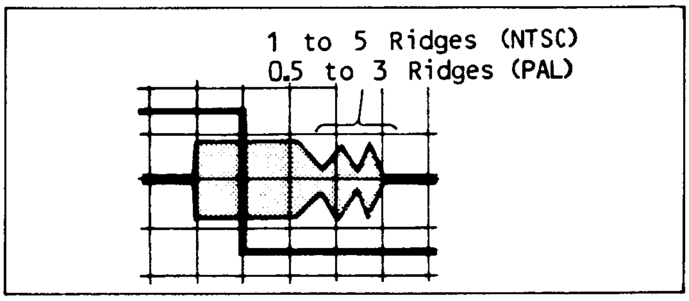

1 to 5 Ridges (NTSC)
0.5 to 3 Ridges (PAL)

Fig. 2-79

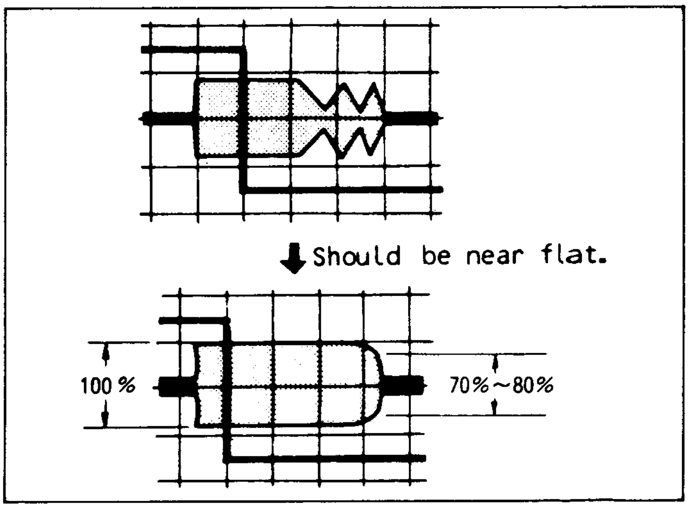

Should be near flat.
100%
70%~80%

Fig. 2-80

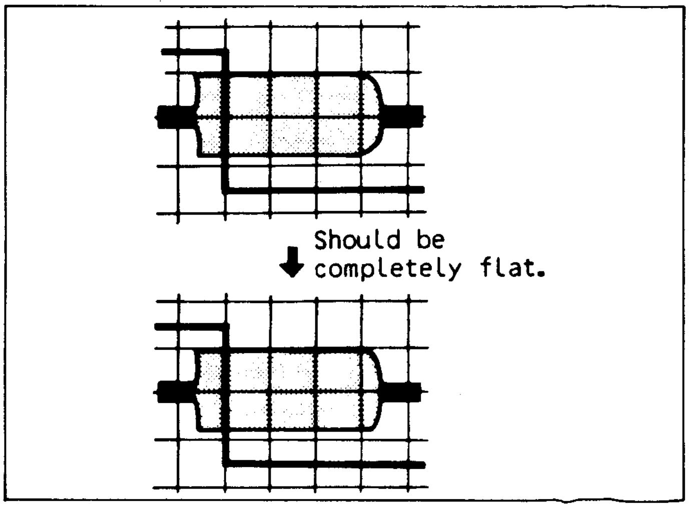

Should be completely flat.

Fig. 2-81

2-6-4. Tracking Fine Adjustment

1) Rotate the variable resistor of the track shift and monitor jig fully to the left. (Set to minimum track shift.) Playback the alignment tape for tracking, and after setting the ATF lock switch to OFF, gradually rotate the variable resistor in the clockwise direction until the amplitude of the RF waveform is 2/3 of maximum, roughly with VR1 and closely with VR2.
[VR2: Fine adjustment]
(Refer to Fig. 2-82)

Note: Rotate the variable resistor slowly as abrupt rotation will cause the servo to become disengaged. When the servo is no longer attracted, readjust after setting the ATF lock switch to ON once.

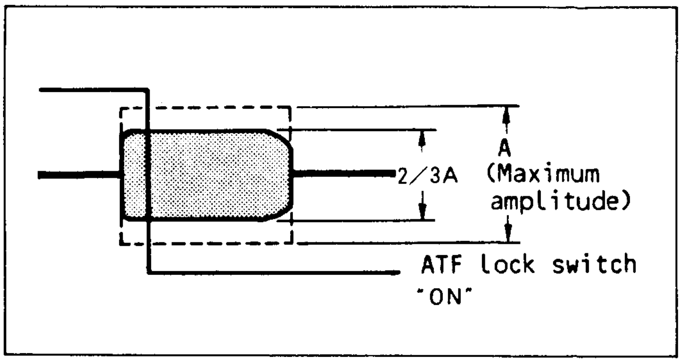

2/3A
A
(Maximum amplitude)
ATF lock switch "ON"

Fig. 2-82

2) Make sure that the waveform is flat. If it is not flat, adjust fine tuning the height of No. 3 guide and No. 4 guide to make flat. (Refer to Fig. 2-83.)

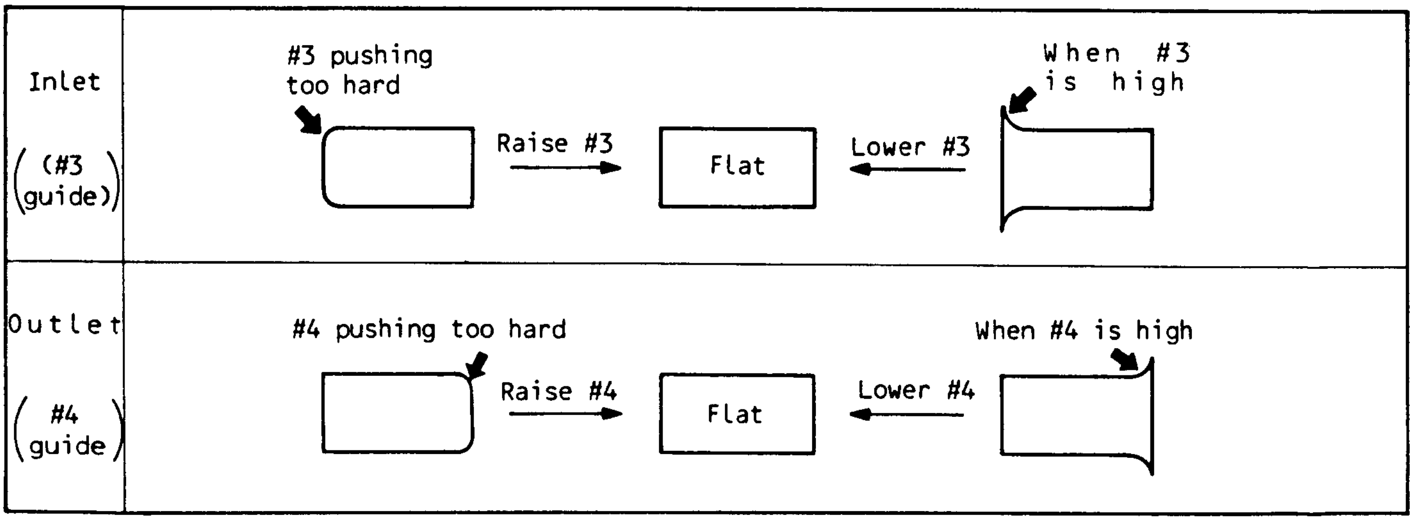

Inlet
(#3 guide)
#3 pushing too hard
Raise #3
Flat
Lower #3
When #3 is high
Outlet
(#4 guide)
#4 pushing too hard
Raise #4
Flat
Lower #4
When #4 is high

Fig. 2-83

3) Make sure that the minimum value (E_{MIN}) of the amplitude is 75% or better of the maximum value (E_{MAX}). (Refer to Fig. 2-84.)

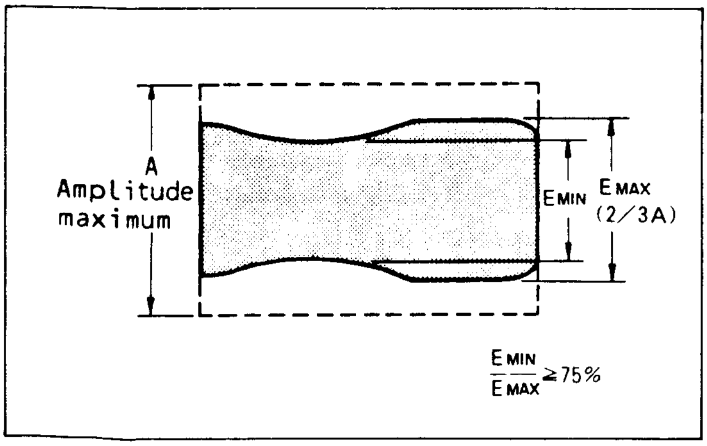

A
Amplitude maximum
EMIN
EMAX
(2/3A)
EMIN/EMAX ≧ 75%

Fig. 2-84

2-6-5. Checking After Adjustment

1. Tracking check
1) Record TV signals, play back recorded signals, and check that quality of both pictures and sounds is satisfactory.
2) Play back the tracking alignment tape and check that RF waveforms do not have large variations.
3) Set up the REV mode and check that the waveform noise pictures are uniform. If not, adjust as follows. (See Fig. 2-85.)

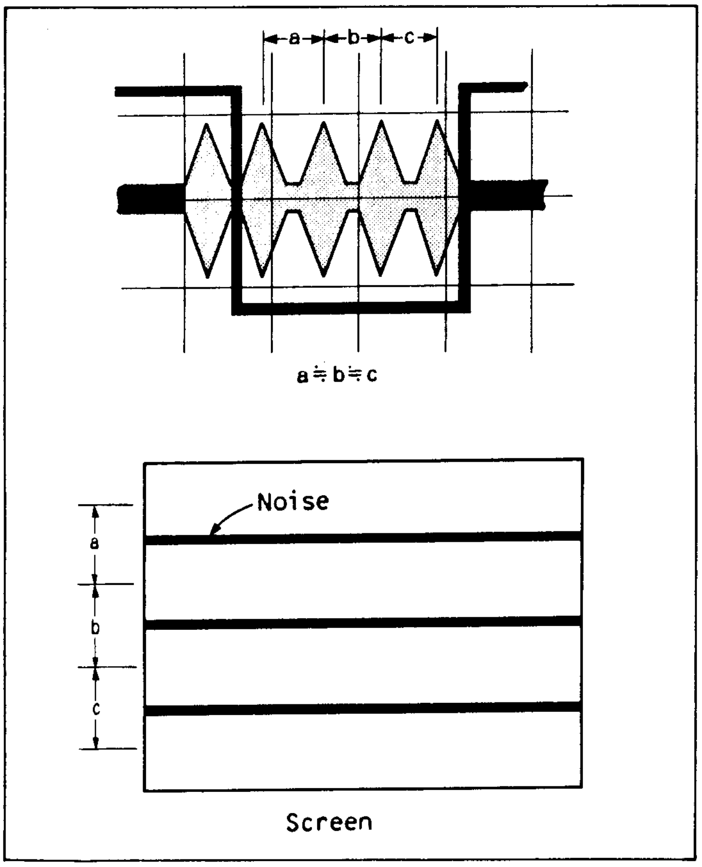


Fig. 2-85

(Narrow noise pitch on inlet side (upper screen))
(See Fig. 2-86.)

Check that the RF waveforms are flat in the PLAYBACK mode.

Waveform is not flat:
Adjust the heights of No.2 and 3 guides as in 2-6-2 Inlet side adjustment.

Waveform is flat:
Rotate No.1 guide (tension regulator height adjusting screw) and No.2 guide gate screw 90° counterclockwise to recheck. (See Fig. 2-73, 75.)

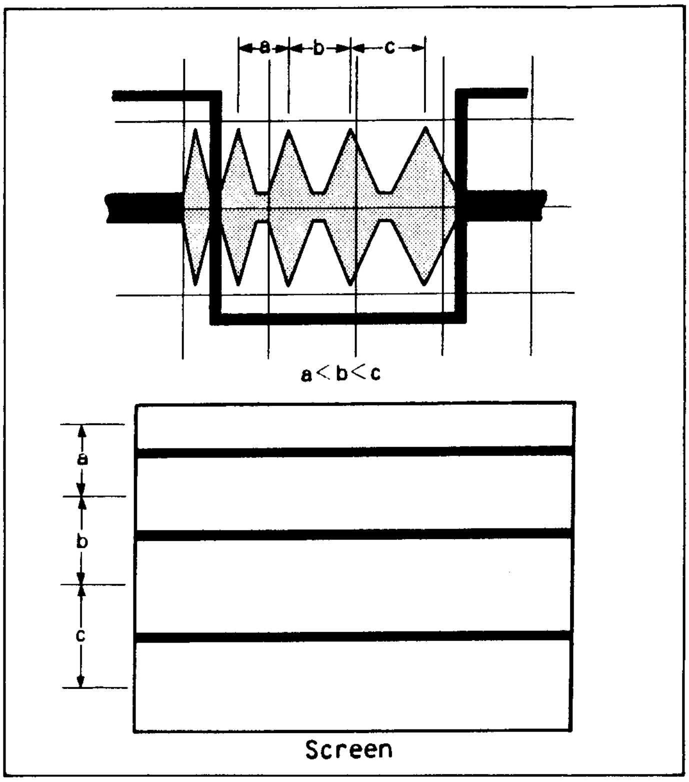


Fig. 2-86

(Narrow noise pitch on outlet side (lower screen))
(See Fig. 2-87.)

Set up the PLAYBACK mode and adjust No.4 and 5 guide heights as in 2-6-3. Outlet Side Rough Adjustment.

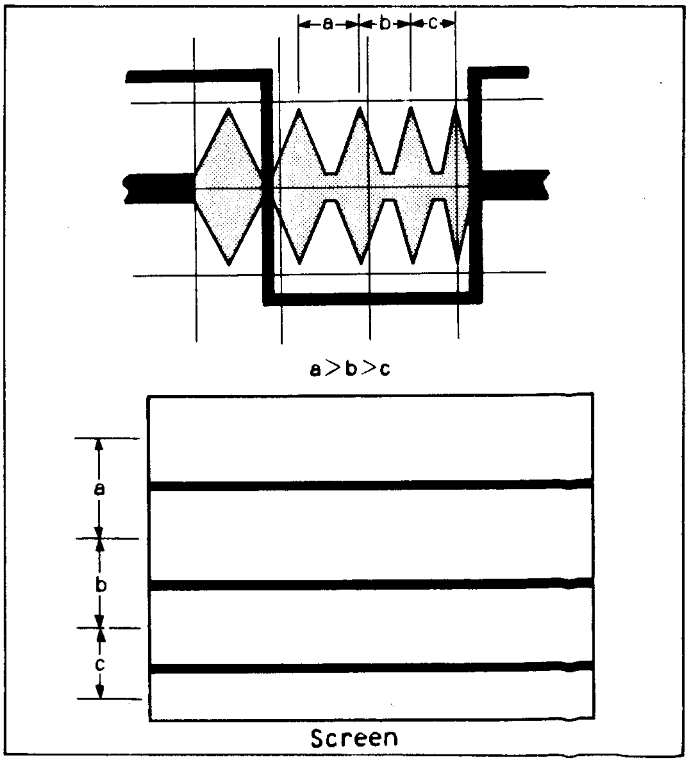


Fig. 2-87

(Wide noise pitch on outlet side (lower screen))
(See Fig. 2-88.)

Set up the PLAYBACK mode and check that the RF waveform is flat.

Waveform is not flat:
Adjust height of No.4 and 5 guides as in 2-6-3. Outlet Side Rough Adjustment.

Waveform is flat:
Rotate the guide lower toothed wheel counterclockwise by No.6 guide lock jig (Ref. No. J-11) to loosen the toothed wheel. Rotate No.6 guide counterclockwise 45° to tighten the lower toothed wheel.
Recheck the RF waveform of the REV mode. (See Fig. 2-89.)

Note: Wrinkles may be caused in Part Ⓐ between the capstan spindle and No.5 guide if No.6 guide is raised excessively. Check that no wrinkles are caused. (See Fig. 2-90.)

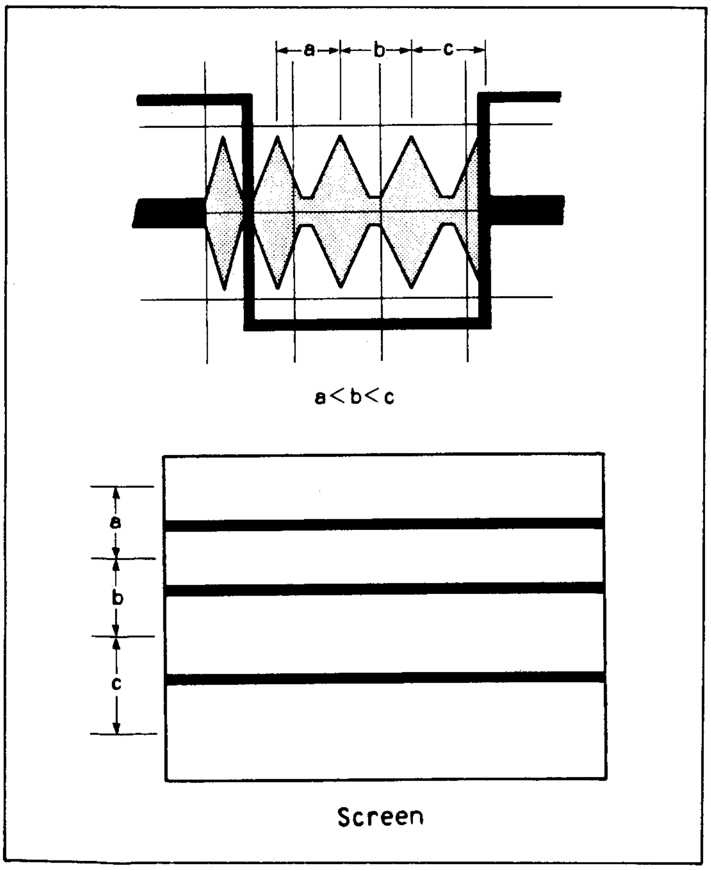

a
b
c
a<b<c
a
b
c
Screen

Fig. 2-88

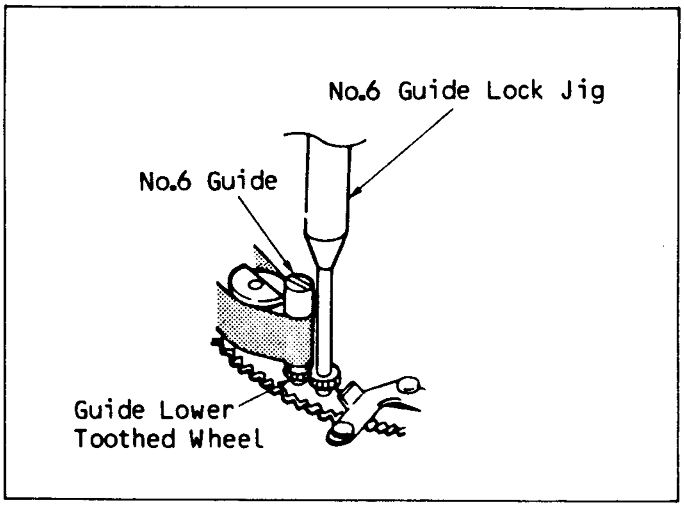

No.6 Guide Lock Jig
No.6 Guide
Guide Lower Toothed Wheel

Fig. 2-89

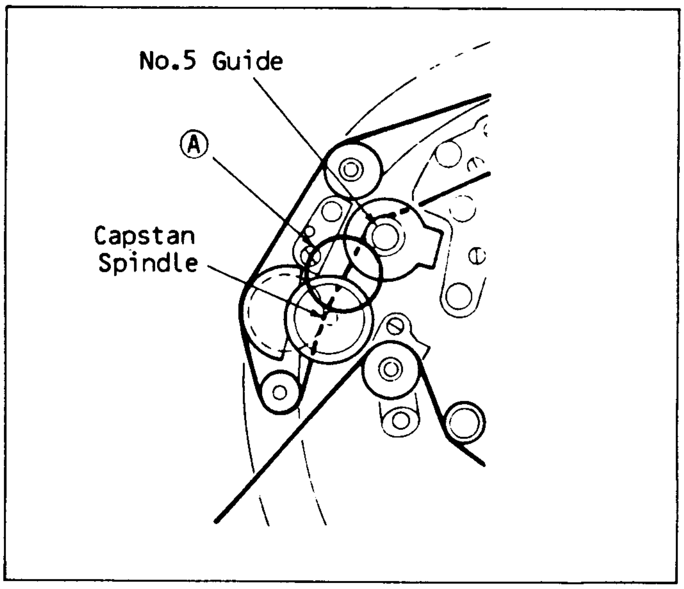

No.5 Guide
Ⓐ
Capstan Spindle

Fig. 2-90

2. Checking rising edge

1) Check that the RF waveform rises horizontally during playing back after finishing loading, after CUE/REV, and during playing back after FF. If not, adjust as follows.

(Noise occurs on outlet side (lower screen) with rising during playing back after finishing loading)
(See Fig. 2-91.)

Check that the FWD back tension is not too low.
If too low:
Readjust as instructed in 2-5-21. FWD back tension adjustment.
If normal:
Rotate the azimuth screw of the pinch roller clockwise by 5° and adjust after checking the rising edge. (See Fig. 2-92.)

(Noise occurs on outlet side (lower screen) with rising during playing back after REV)
(See Fig. 2-91.)

Loosen the guide lower toothed wheel of No.6 guide using No.6 guide lock jig, rotate No.6 guide 90° counterclockwise to tighten the toothed wheel, then recheck the rising edge.

Note: Wrinkles may be caused in Part Ⓐ of Fig. 2-90 if No.6 guide is raised excessively this time, between the capstan spindle and No.5 guide, check that no wrinkles are caused.

(Noise occurs on outlet side (lower screen) with rising during playing back after FF)
(See Fig. 2-91.)

Check that the FWD back tension is not too low.
If too low:
Readjust as instructed in 2-5-21. FWD back tension adjustment.
If normal:
Rotate the azimuth screw of the pinch roller clockwise by 5° and adjust after checking the rising edge. (See Fig. 2-92.)

Note: Be sure to check play back rising after finishing loading in case an adjustment is made.

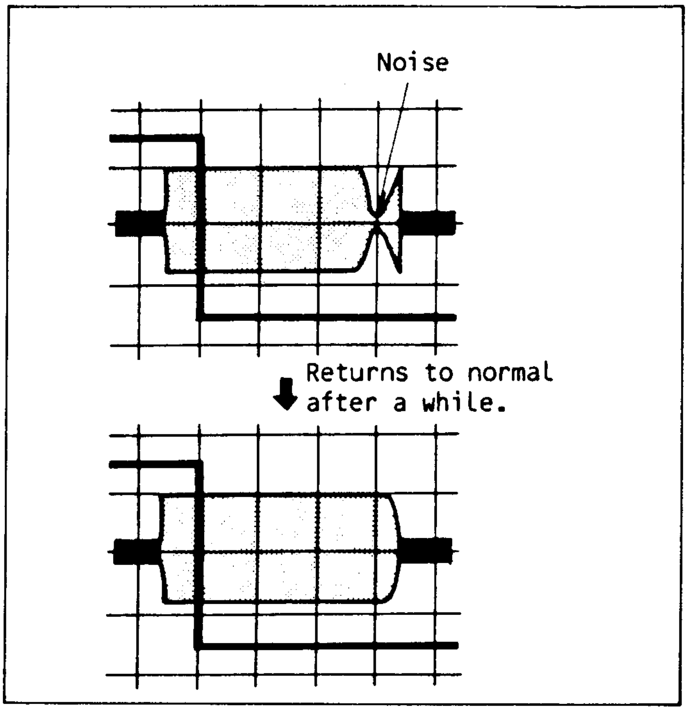

Noise
Returns to normal after a while.

Fig. 2-91

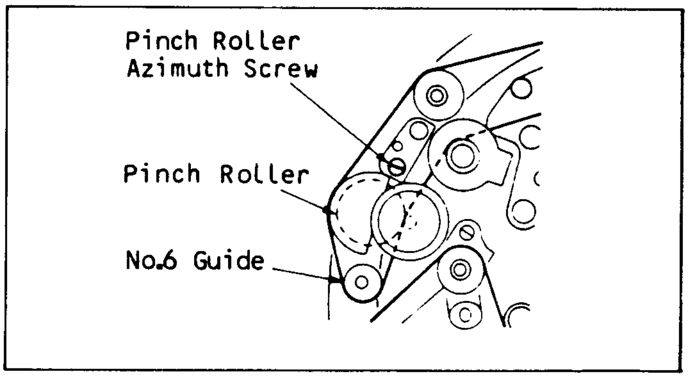

Pinch Roller Azimuth Screw
Pinch Roller
No.6 Guide

Fig. 2-92

3. Tape run check
Check that the tape is not raised or curled at each guide flange of No.1 to 6 (pointed the arrows in Fig. 2-93.) in PLAYBACK, CUE and REV modes.

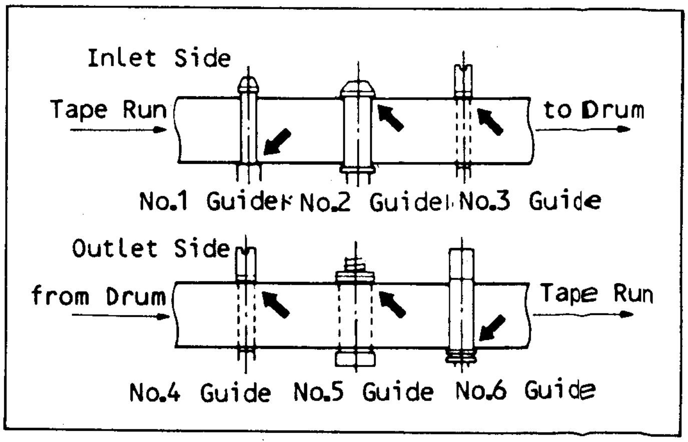
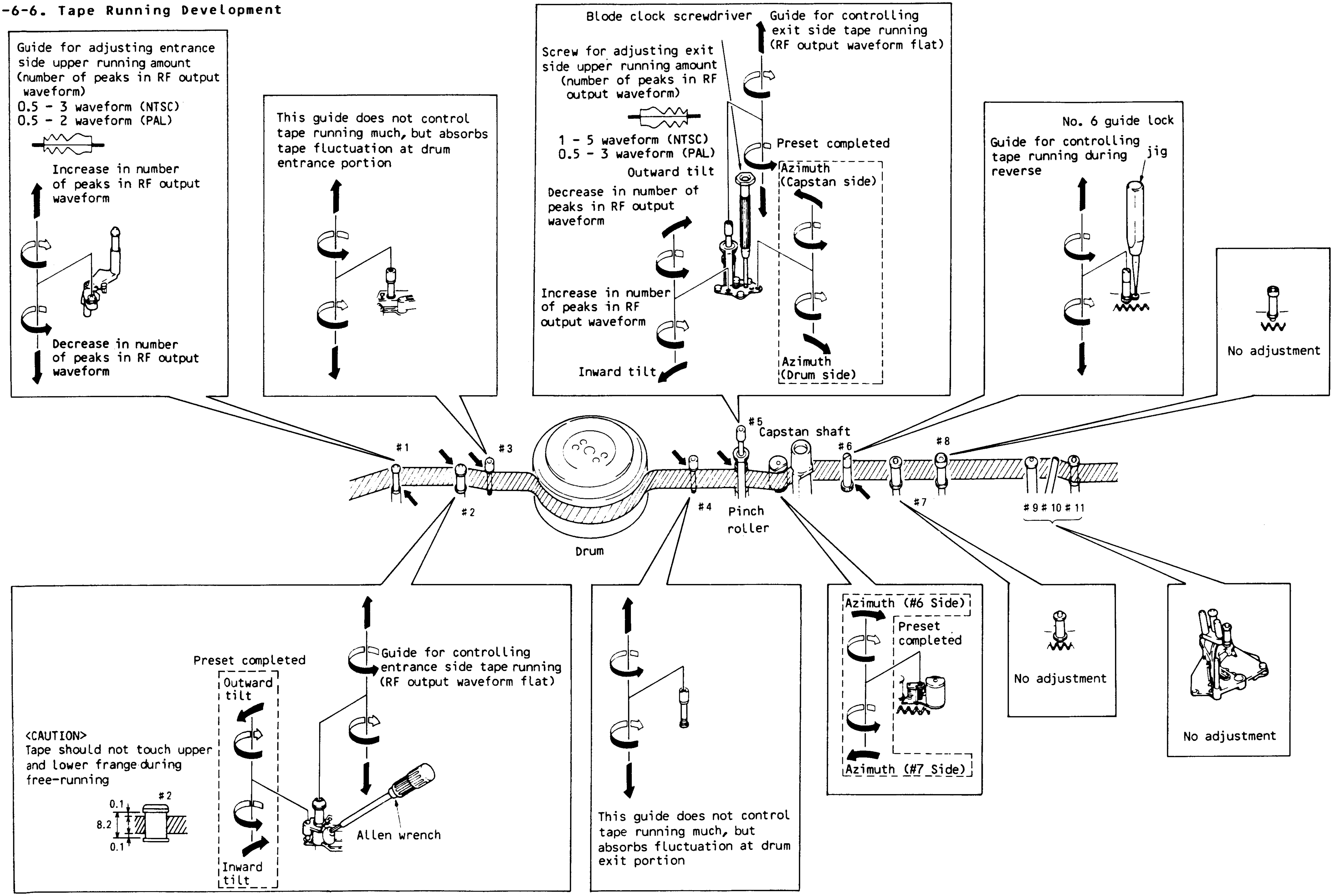

Inlet Side
Tape Run
to Drum
No.1 Guide
No.2 Guide
No.3 Guide
Outlet Side
from Drum
Tape Run
No.4 Guide
No.5 Guide
No.6 Guide

Fig. 2-93

2-6-6. Tape Running Development


Guide for adjusting entrance side upper running amount (number of peaks in RF output waveform)
0.5 - 3 waveform (NTSC)
0.5 - 2 waveform (PAL)
Increase in number of peaks in RF output waveform
Decrease in number of peaks in RF output waveform
This guide does not control tape running much, but absorbs tape fluctuation at drum entrance portion
Blode clock screwdriver
Guide for controlling exit side tape running (RF output waveform flat)
Screw for adjusting exit side upper running amount (number of peaks in RF output waveform)
1 - 5 waveform (NTSC)
0.5 - 3 waveform (PAL)
Outward tilt
Decrease in number of peaks in RF output waveform
Increase in number of peaks in RF output waveform
Inward tilt
Preset completed
Azimuth (Capstan side)
Azimuth (Drum side)
No. 6 guide lock
Guide for controlling tape running during reverse
jig
No adjustment
#1
#2
#3
Drum
#4
#5
Capstan shaft
Pinch roller
#6
#7
#8
#9 #10 #11
Preset completed
Outward tilt
Inward tilt
Guide for controlling entrance side tape running (RF output waveform flat)
Allen wrench
<CAUTION>
Tape should not touch upper and lower frange during free-running
0.1
8.2
0.1
#2
This guide does not control tape running much, but absorbs fluctuation at drum exit portion
Azimuth (#6 Side)
Preset completed
Azimuth (#7 Side)
No adjustment
No adjustment

3. VIDEO SECTION ADJUSTMENT

The following measuring instruments are needed in adjusting the video section.
(Equipment)

1) Monitor TV
2) Oscilloscope 2 phenomena, band 10MHz or wider, with delay mode (Use a 10:1 probe unless otherwise specified)
3) Frequency counter
4) Pattern generator with video output terminal
5) Digital voltmeter
6) Audio generator
7) Audio level meter
8) Audio distortion meter
9) Audio attenuator
10) Regulated power supply
11) Alignment tapes

Video frequency characteristic adjustment (WR5-2C)	Parts code: 8-967-995-16
Operation checking (WR5-5CSP)	Parts code: 8-967-995-47
Tracking adjustment (WR5-1C)	Parts code: 8-967-995-06

(Equipment Connection)
Unless otherwise specified, adjustment is made by connecting the measuring instruments as shown below.

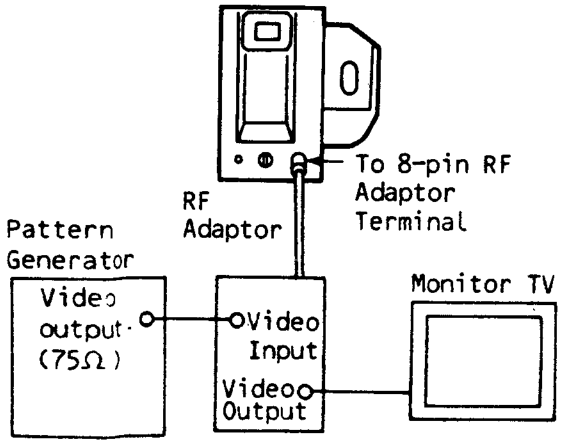

To 8-pin RF
Adaptor
Terminal
RF
Adaptor
Pattern
Generator
Video
output
(75Ω)
Video
Input
Video
Output
Monitor TV

Fig. 3-1

Setting up during adjustment

Video signals output by a pattern generator are used as adjustment signals when adjusting the video section, and these video output signals should be within the required standard. Connect an oscilloscope to Pin ⑧ of CN8501 (VIDEO IN) on the VD-1 Board. Check that the amplitudes of video signal SYNC signals, of picture portions, and of burst signals are flat at approximately 0.3, 0.7, and 0.3V, respectively, and that the level ratio of the burst signals and "red" signals are 0.30:0.66.
Fig. 3-2 shows video signals (color bars) used in adjusting the video section.

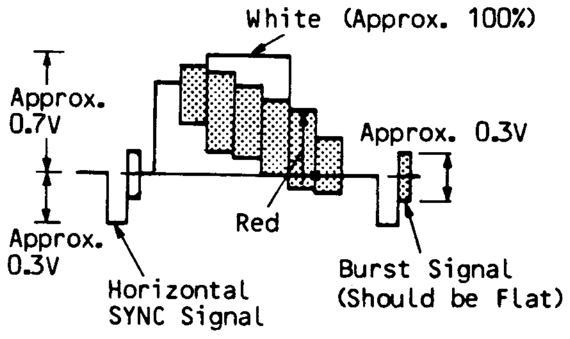
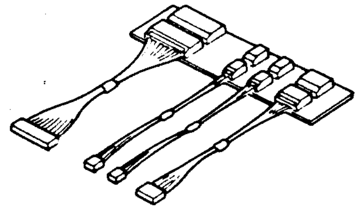
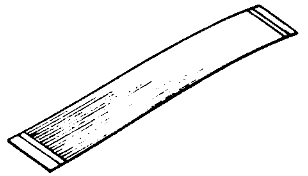
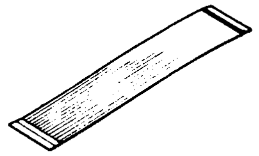

White (Approx. 100%)
Approx.
0.7V
Approx. 0.3V
Red
Approx.
0.3V
Horizontal
SYNC Signal
Burst Signal
(Should be Flat)

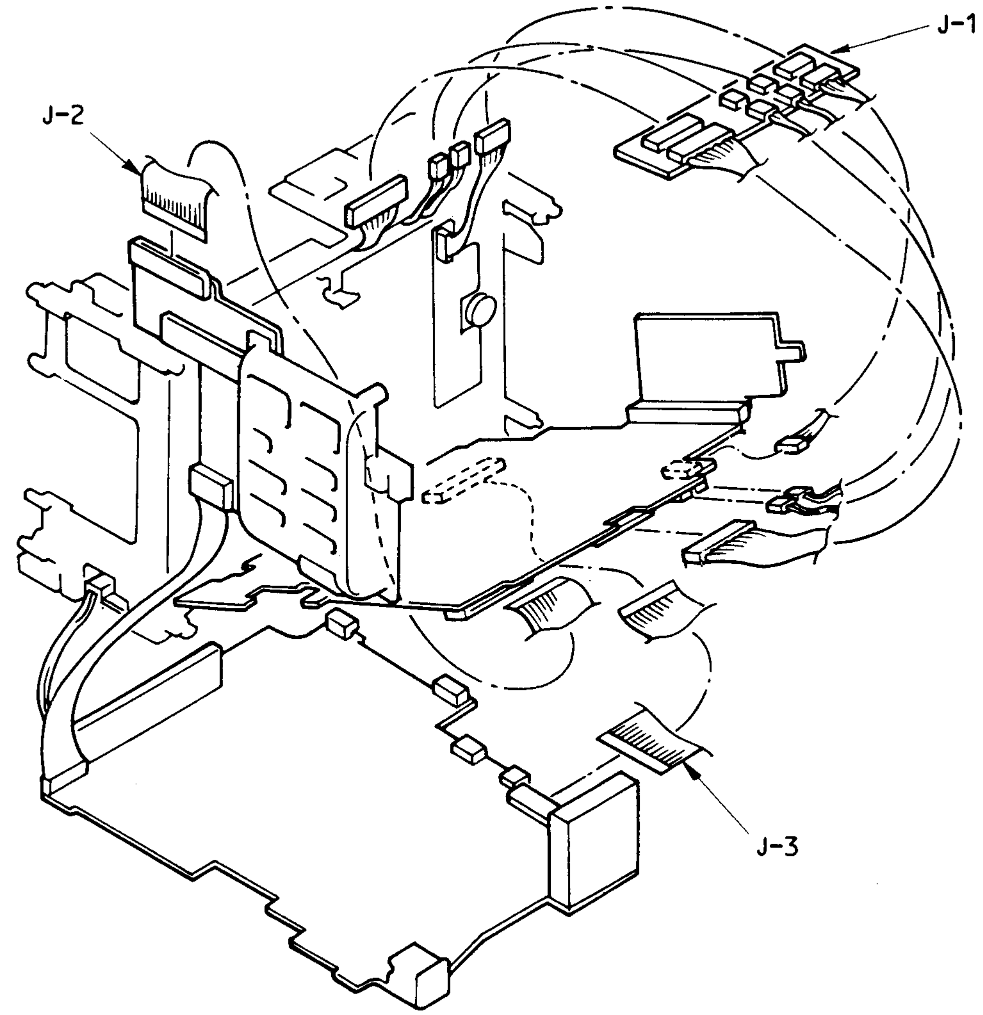
Fig. 3-2 Pattern Generator Color Bar Signals

LIST OF SERVICING JIGS

Ref.No.	Name	Part Code	Use
J-1	SV-1 Extension Cord	VJ8-0026	Video Block Adjustment
J-2	SY-1 Extension FPC	VJ8-0024	Video Block Adjustment
J-3	VD-1 Extension FPC	VJ8-0025	Video Block Adjustment

J-1 	J-2 	J-3 

METHOD OF USING JIGS

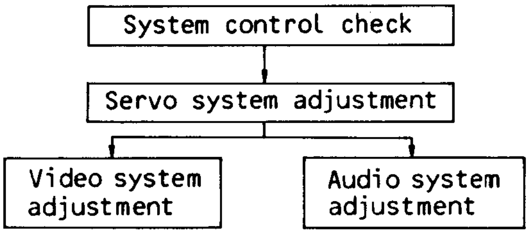


ALIGNMENT TAPE

Tape	Content	Use
Vide Frequency Characteristic (WR5-2C)	1. Recording area: Video 2. Recording content: RF sweep 0 to 10MHz (LP) 3. Marker: 1, 3.58, 5.5 and 7MHz	Frequency characteristic adjustment
Operation checking (WR5-5CSP)	1. Recording area: Video 2. Recording content: Color bars, monoscope (SP) Audio signals (FM)	Operation checking
Tracking (WR5-1C)	1. Recording area: PCM - Video 2. Recording content: CH2: 1MHz signal for linearity adjustment (CH1: 9 MHz)	Drum linearity adjustment

Input/output level and impedance to RF adaptor
Video input pin jack
Input signals: 1Vp-p, 75 ohm unbalanced, sync negative
Video output pin jack
Output signals: 1Vp-p, 75 ohm unbalanced, sync negative
Audio input pin jack
Input level: -10dBs (0dBs=0.775Vrms)
Input impedance: 47k ohm or higher
Audio output pin jack
Regulated output: -8dBs
Output impedance: 2.2k ohm or lower

Adjusting Procedure
Adjust in the following sequence:


System control check
Servo system adjustment
Video system adjustment
Audio system adjustment

3-1. SYSTEM CONTROL ADJUSTMENT
3-1-1. Battery Failure Adjustment (SY-1 Board)

RF adaptor: Shall be connected.
Cassette holder: A cassette tapes should not be contained.
Regulated power supply and digital voltmeter: (See Fig. 3-3.)
Oscilloscope CH1: TP3003 (SY-1 Board)
CH2: TP3001 (SY-1 Board)

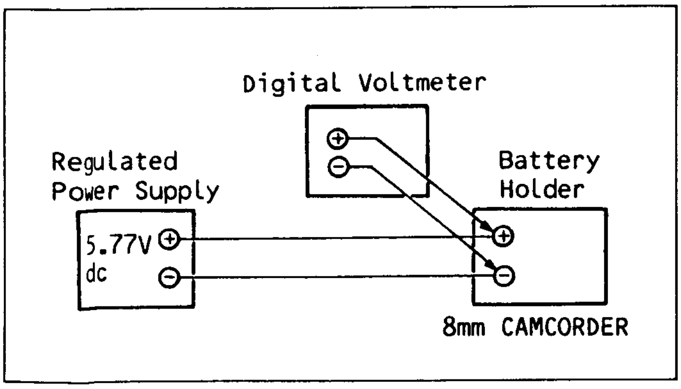

Digital Voltmeter
Regulated Power Supply
5.77V dc
Battery Holder
8mm CAMCORDER

Fig. 3-3

(Adjustment Method)

1) Set the regulated power supply to 5.77Vdc and turn on "VTR POWER". (Set the input selector of the RF adaptor to LINE.)
2) Short TP3002 and TP3003 on the SY-1 Board by a jumper wire.
3) Rotate VR3001 on the SY-1 Board and set to the position where a pulse is generated on CH2. (See Fig. 3-4.)
4) Rotate VR3001 slowly in an opposite direction and stop it when the CH2 pulse disappears.
5) Disconnect the jumper wire.

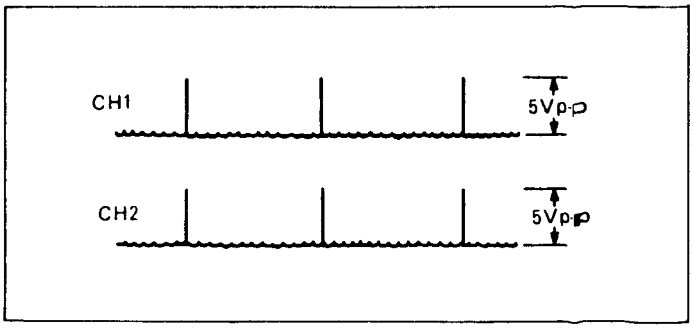


Fig. 3-4 Battery Failure Adjustment

3-2. SERVO SYSTEM ADJUSTMENT

3-2-1. MOTOR POWER Voltage Adjustment (SV-2 Board)

Mode: E-E
Digital voltmeter: Pin ⑥ of CN4301
(Adjustment Method)
Adjust to 5.30±0.05V dc with SVR4301.

3-2-2. Capstan Free Speed Adjustment (SY-1 and SV-2 Boards)

Mode: PLAYBACK
Tape: Alignment tape: Operation check (WR5-5CSP)
Frequency counter: TP4301 (SV-2)
(Adjustment Method)

1) Connect TP3002 and TP3003 on the SY-1 board using a jumper wire. (Test mode)
2) Make sure that TP3006 and TP3007 on the SY-1 board are not connected. (SP mode)
3) Connect TP4302 on the SV-2 board to GND.
4) Adjust the pulse frequency to approximately 1340Hz by SVR4303 on the SV-2 board.

3-2-3. Switching Position Adjustment (SV-2 and VD-1 Boards)

Mode: PLAYBACK
Alignment tape: Operation checking (WR5-5CSP)
Oscilloscope CH1: TP1001 on the VD-1 board (LINE OUT)
CH2: Pin ③ of CN1002 on the VD-1 board (RF SW)
GND: Pin ① of CN1002 on the VD-1 board
(Adjustment Method)
Adjust the interval between the leading edge of CH2 and the vertical SYNC signal of CH1 to 7.0+0.3H (450±20µs) using SVR4305 on the SV-2 board.

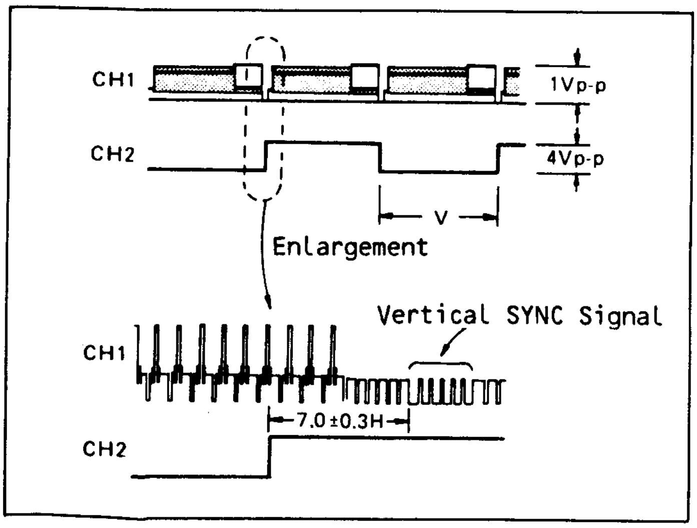


Fig. 3-5 Switching Position Adjustment

3-2-4. SLOW TRACKING Adjustment (SV-2 and VD-1 Boards)

Mode: SLOW PLAYBACK
Tape: Self-recorded
Oscilloscope CH1: Pin ② of CN1002 on the VD-1 board (PB RF)
CH2: Pin ③ of CN1002 on the VD-1 board (RF SW)
GND: Pin ① of CN1002 on the VD-1 board

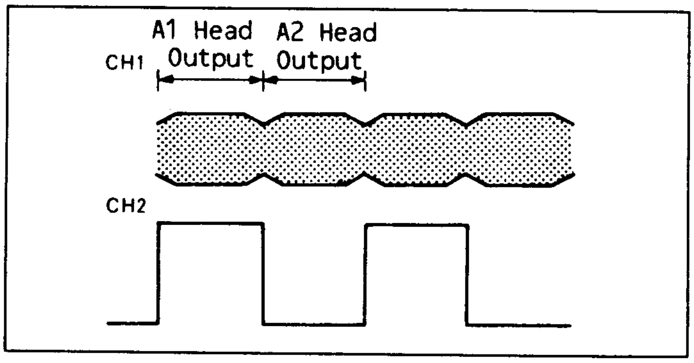


Fig. 3-6 Slow Tracking Adjustment

(Adjustment Method)
With SVR4307 on the SV-2 board set to the center position, use VR4304 on the SV-2 board to adjust the A1 head output and A2 head output of CH1 to the symmetry shown in Fig. 3-6.

3-2-5. STILL Picture Adjustment

Mode: STILL-PLAYBACK
Tape: Self-recorded
(Adjustment Method)
Watch the monitor TV while making adjustments. Adjust SVR4306 on the SV-2 board so that vertical jitter is minimum (Secondary images in the vertical direction).

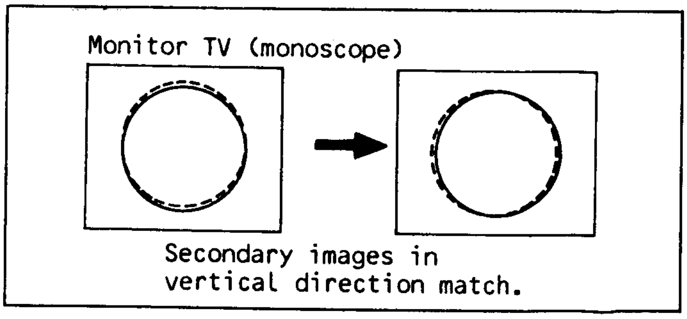


Fig. 3-7 Adjustment of Still Picture Vertical Jitter

3-3. VIDEO SYSTEM ADJUSTMENT

In principle, adjust the video system in the following procedure.
Color video signals fed by a pattern generator are utilized as video input signals for video system adjustment in the RECORD mode. Check that the SYNC and color burst signals match the standard designated in adjustment setting up shown in Fig. 3-2.
(Adjustment Procedure)

1) Playback video frequency characteristic adjustment
2) Special playback frequency characteristic adjustment
3) PB Y trap adjustment
4) X'tal oscillator fo adjustment
5) Y comb filter adjustment
6) Y/C separation adjustment
7) SYNC AGC adjustment
8) VIDEO OUT level adjustment
9) PB Y level adjustment
10) AC clip adjustment
11) Chroma emphasis fo adjustment
12) fH VCO adjustment
13) GCA GAIN adjustment
14) REC Y recording current adjustment
15) REC C recording current adjustment
16) REC ATF recording current adjustment

3-3-1. Playback Video Frequency Characteristic Adjustment (VD-1 and VP-1 Boards)

CH-B adjusting elements are shown in [ ].
Mode: PLAYBACK
Alignment tape: Frequency characteristics adjustment (WR5-2C)
Oscilloscope CH1: Pin②of CN1002 on the VD-1 board [Pin②of CN1002]
External trigger: Pin③of CN1002 on the VD-1 board [Pin③of CN1002]
Trigger slope: +, [-]
(Adjustment Method)
Adjust the ratio between the 3.58 and 5.5MHz levels to 3:2 using SVR1501 [SVR1503] on the VP-1 board.

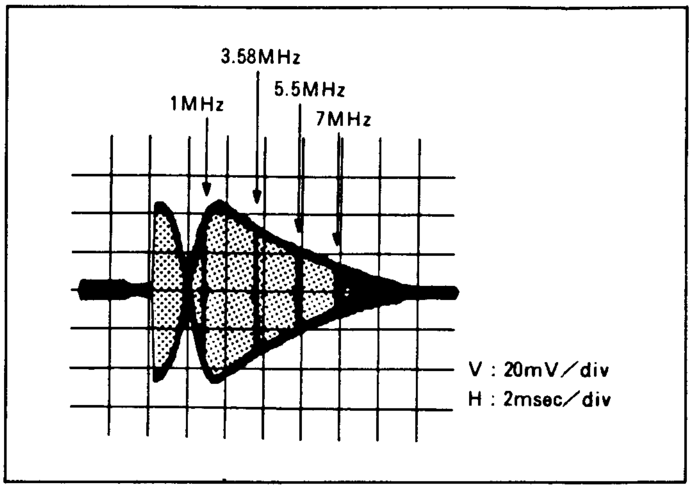


Fig. 3-8 Playback Frequency Characteristic Adjustment

3-3-2. Special Playback Frequency Adjustment (VD-1 and VP-1 Boards)

Mode: STILL-PLAYBACK
Alignment tape: Frequency characteristics adjustment (WR5-2C)
Operation checking (WR5-5CSP)
Oscilloscope: Pin②of CN1002 (VD-1)
External trigger: Pin③of CN1002 (VD-1)
Trigger slope: [-]
(Adjustment Method)

1) After slow-playback of the frequency characteristic adjustment tape (WR5-2C), change to still-playback.
Make sure that the CH-A1 waveform (RF switching pulse "H") does not vary greatly from the normal playback waveform. If it varies greatly, repeat slow-playback-still adjustment until it is almost the same as the normal playback waveform.
2) Use SVR1505 to adjust so that the ratio of the 3.58MHz level and the 5.5MHz level is 3:2.
3) Next, slow-playback the operation checking tape (WR5-5CSP); then adjust the slow tracking volume (SVR4307 on the SV-2 board) to the optimum condition and check to be sure that there is no occurrence of tearing.
If there is, turn SVR1505 until it minimizes.

3-3-3. PB Y Trap Adjustment (VD-1 Board)

Mode: Self-recording
Input signals: Color bar
(Adjustment Method)

1) RECORD
2) Still-playback recorded portions.
3) Rotate T1201 while watching the monitor TV screen and stop rotating when the beat is minimum.

3-3-4. X'tal Oscillator fo Adjustment (VD-1 Board)

Mode: PLAYBACK
Alignment tape: Operation checking (WR5-5CSP)
Frequency counter: TP1103
Note: Connect the frequency counter through a buffer with high impedance (approx. 10M ohm) and low capacity (Less than 10pF).
(Adjustment Method)
Adjust to 4433619±30Hz with CT1101.

3-3-5. Y Comb Filter Adjustment (VD-1 Board)

Mode: PLAYBACK
Input signals: Operation checking (WR5-5CSP)
Color bar portion
Oscilloscope: TP1004 (Pin ② of IC1001)
Note: Connect a 22k ohm resistor serially between TP1004 and 10:1 probe.
(Adjustment Method)
Adjust SVR1001 so as to minimize the amplitude of the video interval.

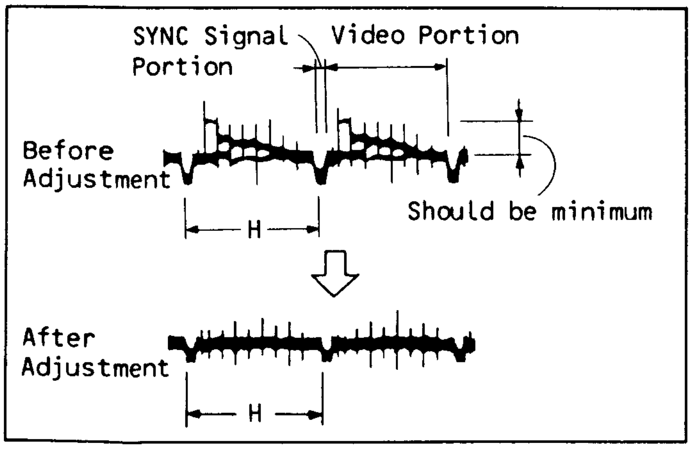

SYNC Signal Portion
Video Portion
Before Adjustment
Should be minimum
H
After Adjustment
H

Fig. 3-9 Y Comb Filter

3-3-6. Y/C Separation Adjustment (VD-1 Board)

Mode: E-E
Input signals: Color bar
Oscilloscope: TP1002 (Pin ⑨ of IC1001)
(Adjustment Method)
Connect TP1007 and TP1008 with a jumper wire. Adjust SVR1006 and T1003 alternately to minimize residual chroma components.

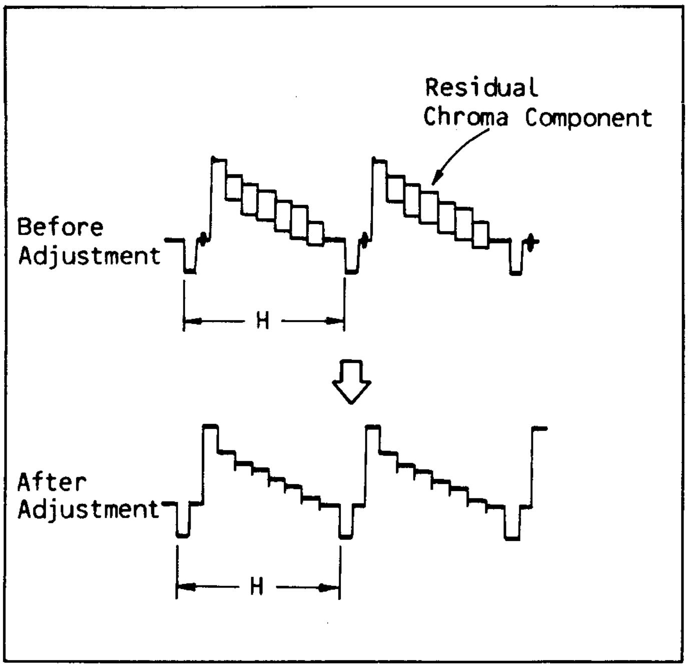

Residual Chroma Component
Before Adjustment
H
After Adjustment
H

Fig. 3-10 Y/C Separation Adjustment

3-3-7. SYNC AGC Adjustment (VD-1 Board)

Mode: E-E
Input signals: Color bar
Oscilloscope: TP1003 (Pin ⑩ of IC1001)
(Adjustment Method)
Adjust to 0.5±0.01Vp-p with SVR1002.

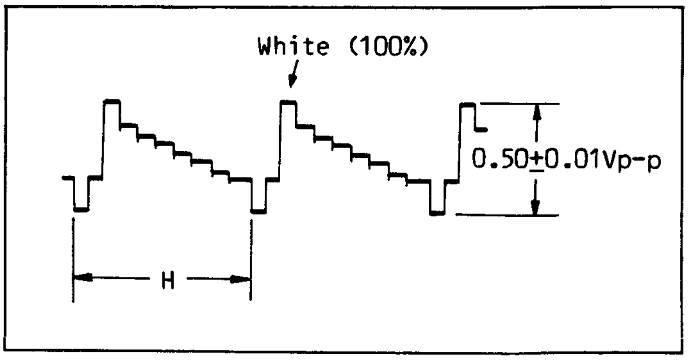

White (100%)
0.50±0.01Vp-p
H

Fig. 3-11 SYNC AGC Adjustment

3-3-8. VIDEO OUT Level Adjustment (VD-1 Board)

Mode: E-E
Input signals: Color bar
Oscilloscope: TP1001 (VIDEO OUT)
The RF adaptor should be connected to the adaptor, and the video output terminal should be terminated at 75 ohms.

(Adjustment Method)
Adjust to $1.00^{+0.025}_{-0.05}$ Vp-p with SVR1003.

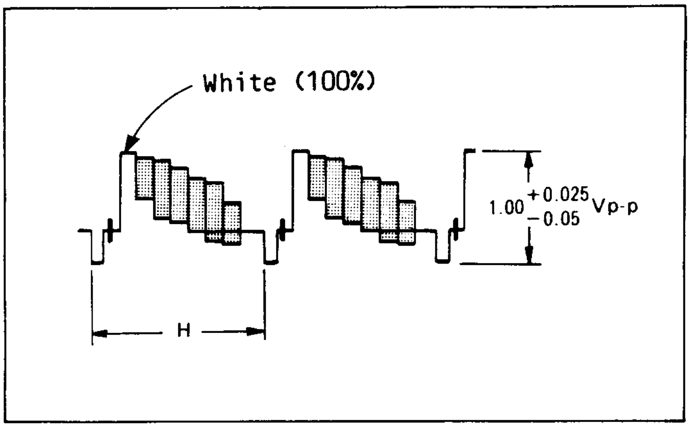


Fig. 3-12 VIDEO OUT Level Adjustment

3-3-9. PB Y Level Signal (VD-1 Board)

Mode: PLAYBACK
Alignment tape: Operation checking (WR5-5CSP) Color bar portion
Oscilloscope: TP1001 (VIDEO OUT)
The RF adaptor should be connected to the adaptor, and the video output terminal should be terminated at 75 ohms.

(Adjustment Method)
Adjust to $1.00^{+0.025}_{-0.05}$ Vp-p with SVR1005.

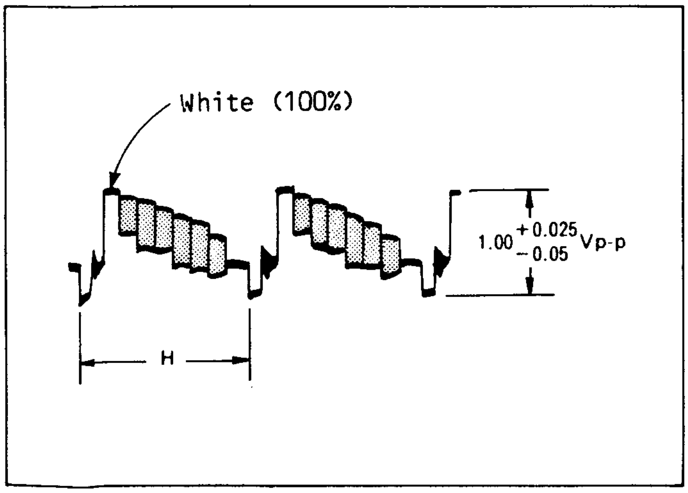


Fig. 3-13 PB Y Level Adjustment

3-3-10. AC Clip Adjustment (VD-1 Board)

Mode: PLAYBACK
Alignment tape: Operation checking (WR5-5CSP) Color bar portions.
Oscilloscope: TP1001 (VIDEO OUT)
The RF adaptor should be connected to the adaptor and the video output terminal should be terminated at 75 ohms.

(Adjustment Method)

1) Adjust SVR1004 so that the upper edge of the 100% white is flat.
2) Check to be sure that white smear and black smear do not appear on the monitor screen when the monoscope part is played back.

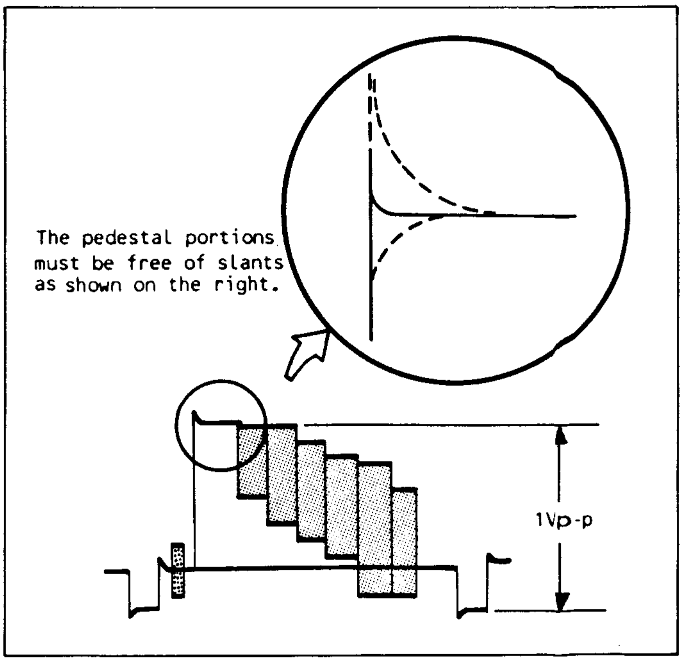

The pedestal portions must be free of slants as shown on the right.

Fig. 3-14 AC Clip Adjustment

3-3-11. Chroma Emphasis fo Adjustment (VD-1 Board)

Mode: E-E
Input signals: Color bar
Oscilloscope: TP1102
(Adjustment Method)
Minimize the amplitude of the flat portions of chroma signals with T1101.

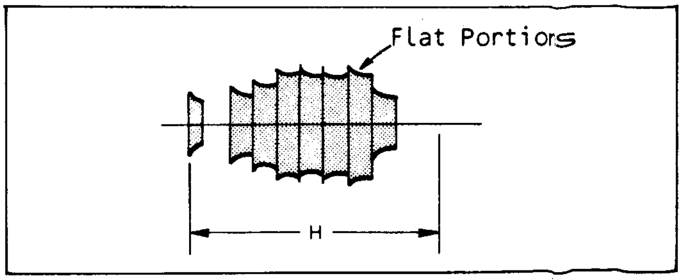


Fig. 3-15 Chroma Emphasis fo Adjustment

3-4-12. fH VCO Adjustment (VD-1 Board)

Mode: E-E
Input signal: Colour bar
Oscilloscope: CH1: TP1105
CH2: TP1001 (VIDEO OUT)

(Adjustment Method)

1) Adjust SVR1101 so that the TR of CH1 is 14.0±0.5µsec.
2) Confirm that the H (time) of CH1 and CH2 is stable.

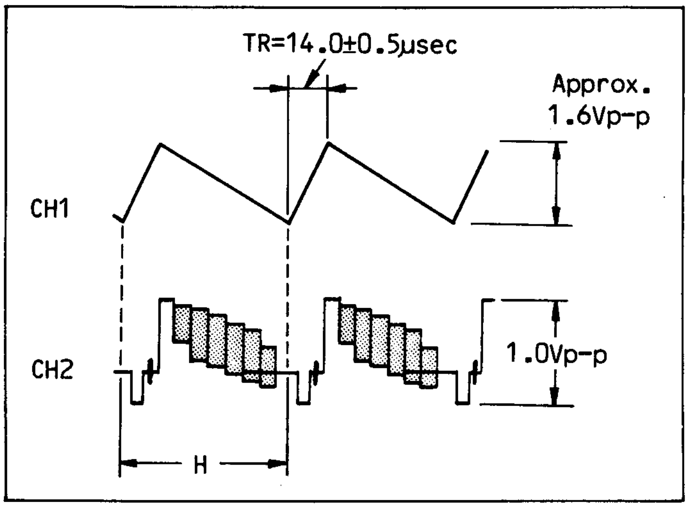


Fig. 3-16 fH VCO Adjustment

3-4-13. GCA GAIN Adjustment (VD-1 Board)

Mode: PLAYBACK PAUSE
Alignment tape: For operation checking (WR5-5CSP) colour bar portion
Oscilloscope: TP1106

(Adjustment Method)

Adjust SVR1102 so that the burst signal is 500mVp-p.

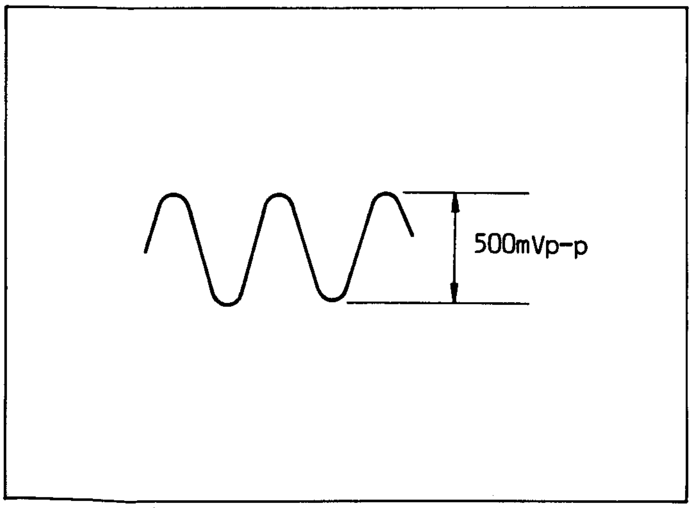


Fig. 3-17 GCA GAIN Adjustment

3-3-14. REC Y Recording Current Adjustment (VP-1 Board)

Mode: RECORD
Tape: MP type
Input signals: Color bar
Oscilloscope: TP1502
Connection: Connect the following two places with jumper wires.
VD-1 IC1101 ㉗ - same IC ⑳
VD-1 Q1302 emitter - same Q collector
Connect the following place with a 0.01µF electrolytic capacitor.
VD-1 IC2001 ⑪ - same IC ⑬

(Adjustment Method)

Adjust to 235 - 245mVp-p with SVR1502.

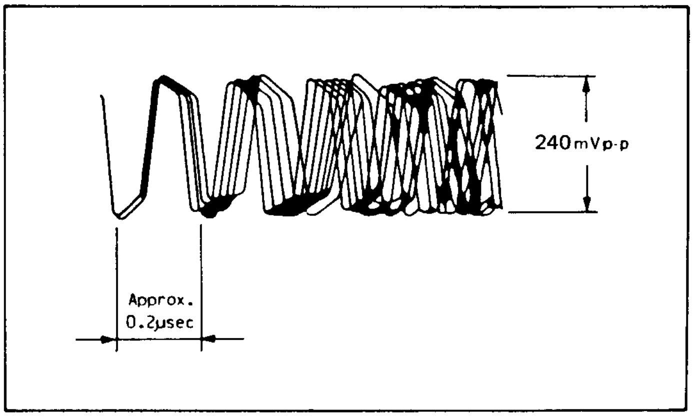


Fig. 3-18 REC Y Recording Current Adjustment

3-3-15. REC C Recording Current Adjustment (VP-1 Board)

Mode: RECORD
Tape: MP type
Input signal: Color bar
Oscilloscope: TP1502
Do not use a 10:1 probe if the signal level is too small and is difficult to read. Connect directly using a 100 ohm resistor as shown in Fig. 3-17.

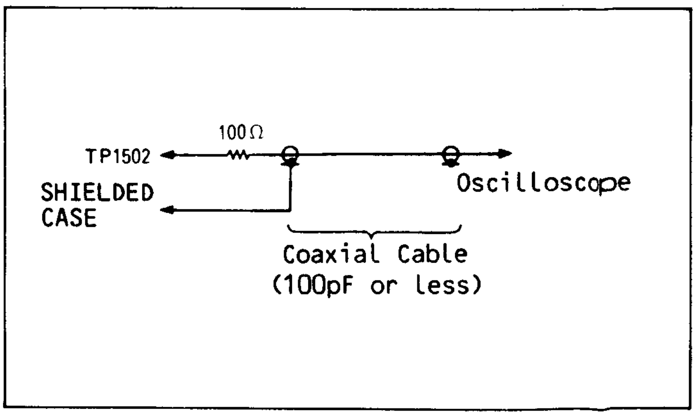


Fig. 3-19

Connection: Connect the following two places using jumper wires.
VD-1 IC1001 ㉗ - same IC ㉖
VD-1 Q1302 emitter - same Q collector
Connect the following place with a 0.01μF electrolytic capacitor.
VD-1 IC2001 ⑪ - same IC ⑬

(Adjustment Method)
1) Adjust the red level to 45mVp-p with SVR1504.
2) Make FMA recording current adjustments as required in 3-4-3.

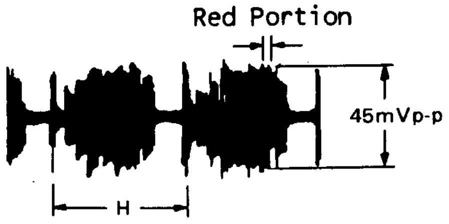


Fig. 3-20 REC C Recording Current Adjustment

3-3-16. REC ATF Recording Current Adjustment (VD-1 and VP-1 Boards)

Mode: RECORD
Tape: MP type
Input signals: Color bar
Oscilloscope: TP1502
Do not use a 10:1 probe if the signal level is too small and is difficult to read. Connect directly using a 100 ohm resistor as shown in Fig. 3-19.

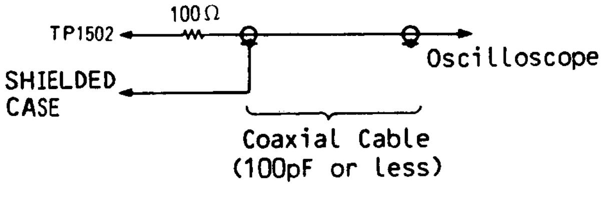

100Ω
TP1502
SHIELDED CASE
Oscilloscope
Coaxial Cable
(100pF or less)

Fig. 3-21

Connection: Connect the following two places using jumper wires.
VD-1 IC1001 ㉗ - same IC ㉖
VD-1 IC1101 ㉗ - same IC ⑳
Connect the following place with a 0.01uF electrolytic capacitor.
VD-1 IC2001 ⑪ - same IC ⑬

(Adjustment Method)
1) Adjust to 14mVp-p with SVR1202.

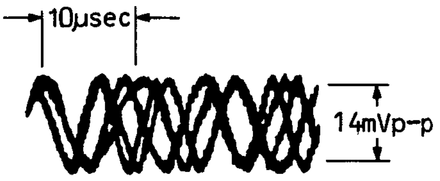


Fig. 3-22 REC ATF Recording Current Adjustment

3-4. AUDIO SYSTEM ADJUSTMENT

Connection of audio measuring instruments
Connect audio-system measuring instruments as shown below in addition to video system measuring instruments.

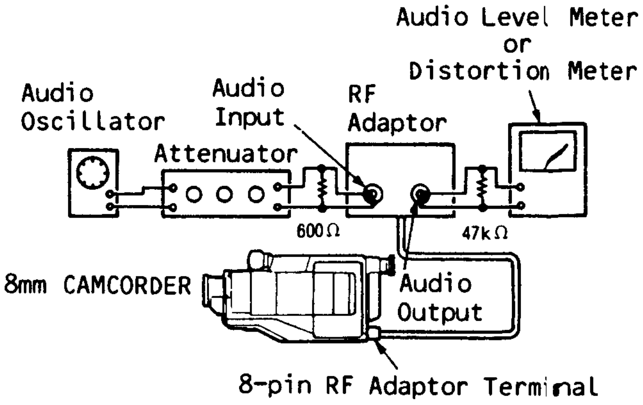

Audio Level Meter or Distortion Meter
Audio Oscillator
Audio Input
RF Adaptor
Attenuator
600Ω
47kΩ
8mm CAMCORDER
Audio Output
8-pin RF Adaptor Terminal

Fig. 3-23

(Adjusting Procedure)
1) FMA carrier frequency check
2) FMA deviation check
3) FMA recording current adjustment
4) E-E output level check
5) Overall level characteristic check
6) Overall distortion factor check
7) Overall noise level check

3-4-1. FMA Carrier Frequency Check (VD-1 Board)

Mode: RECORD
Audio input signals: None
Frequency counter: Pin ⑪ of IC2001
(Checking Method)
The frequency must be 1.500±0.01MHz

3-4-2. FMA Deviation Check (VD-1 Board)

Mode: PLAYBACK
Playback tape: Operation checking (WR5-5CSP)
(Checking Method)
The audio output level must be -6±2dBs.

3-4-3. FMA Recording Current Adjustment (VD-1 and VP-1 Boards)

Mode: RECORD
Tape: MP type
Audio input signals: None
Oscilloscope: TP1503
Do not use a 10:1 probe if the signal level is too small and is difficult to read. Connect directly using a 100 ohm resistor as shown below.

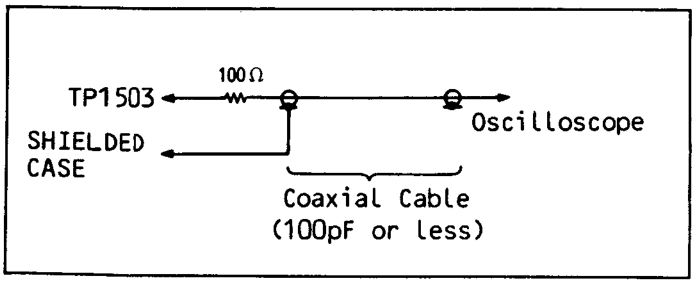


Fig. 3-24

Connection: Connect the following three places using jumper wires.
VD-2 IC1001 ㉗ - same IC ㉖
VD-1 IC1101 ㉗ - same IC ⑳
VD-1 Q1302 emitter - same Q collector
(Adjustment Method)
Adjust to 11mVp-p with SVR1201.

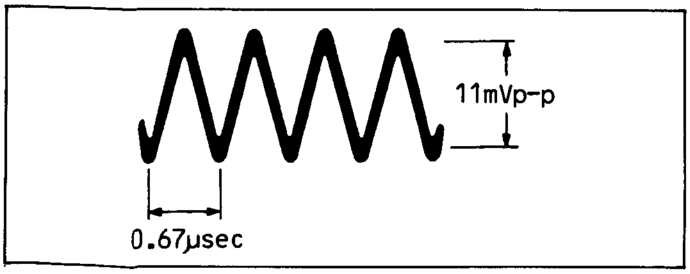


Fig. 3-25 FMA Recording Current Adjustment

3-4-4. E-E Output Level Check

Mode: E-E or RECORD
Audio input signals: 400Hz, -6dBs
(Checking Method)
The audio output level must be -6±3dBs.

3-4-5. Overall Level Characteristic Check

Mode: Self-recording and PLAYBACK
Tape: MP type
Audio input signals: 400Hz, -6dBs
(Checking Method)
1) Record.
2) Playback recorded portions.
3) The audio output level must be -6±3dBs.

3-4-6. Overall distortion Check

Mode: Self-recording and PLAYBACK
Tape: MP type
Audio input signals: 400Hz, -6dBs
(Checking Method)
1) Record.
2) Playback recorded portions.
3) The distortion must be less than 1.0%.

3-4-7. Overall Noise Level Check

Mode: Self-recording and PLAYBACK
Tape: MP type
Audio input signals: None (Short audio input terminal)
(Checking Method)
1) Record.
2) Playback recorded portions.
3) Make sure that the dBs value for 3-5-5 (Playback level) minus the dBs value for the playback level of this step is 50dB or greater.

4. ELECTRONIC VIEW FINDER ADJUSTMENT

4-1. EQUIPMENT

1. Oscilloscope
2. Frequency counter
3. Alignment tapes
   For operation checking (WR5-5CSP)
   Parts code 8-967-995-47

4-2. ADJUSTMENT ORDER

1. Viewfinder temporary adjustment
2. Viewfinder aging
3. Horizontal oscillation frequency adjustment
4. Vertical size adjustment
5. Viewfinder tilt adjustment
6. Centering adjustment
7. Contrast adjustment
8. Brightness adjustment
9. Focus adjustment

Note: Adjustment must be made from 1 to 9 with no steps omitted.

4-3. VIEWFINDER TEMPORARY ADJUSTMENT

Playback alignment tape (WR5-5CSP) (monoscope portions).
Adjustment Method

1. Confirm that there is a video image. If not, adjust with VR9504 until an image appears.
2. Make sure that there is no jitter in the horizontal direction. If jitter exists, eliminate it with VR9501.
3. Set vertical overscan with VR9502.
4. If the image is sloped and portions are missing, adjust the tilt with the deflection yoke.
5. Rotate the centering magnet for centering.
6. Adjust for the proper image with VR9504, VR9503, and VR9504.

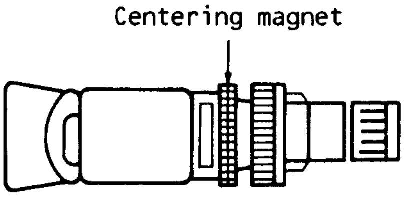


Fig. 4-1

4-4. VIEWFINDER AGING

1. Make sure that the screen is bright. If not, adjust with VR9504 so that the screen is bright.
2. Perform aging of the unit over 20 minutes.

4-5. HORIZONTAL OSCILLATION FREQUENCY ADJUSTMENT

Playback alignment tape (WR5-5CSP). Short-circuit pins ② and ③ of connector CN9501 with a jumper wire.
Frequency counter: TP9503
Adjustment Method
Adjust the frequency to 16000 ±30Hz with VR9501.

4-6. VERTICAL SIZE ADJUSTMENT

Playback alignment tape (WR5-5CSP) (monoscope portions).
Adjustment method

1. Adjust with VR9502 until A and B are almost equivalent as shown in Fig. 4-2. (Make sure the circular pattern is perfectly circular.)

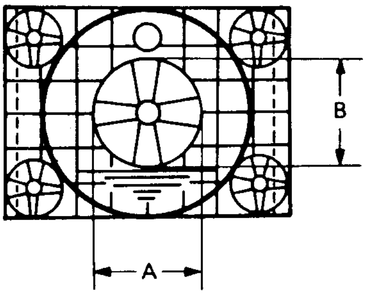


Fig. 4-2.

4-7. VIEWFINDER TILT ADJUSTMENT

Playback alignment tape (WR5-5CSP) (monoscope portions).

(Adjustment Method)

1. Rotate the deflection coil so that the tilt of the screen is within 0°±1.0°.
2. Rotate the yoke clamp in arrow Ⓐ direction to fix the deflection coil in place. (Arrow Ⓑ direction loosens it.)

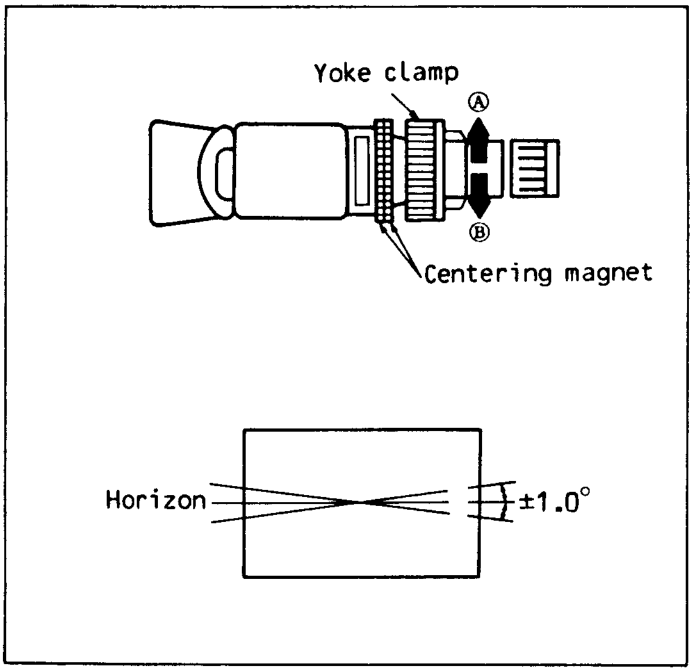


Fig. 4-3.

4-8. CENTERING ADJUSTMENT

Playback alignment tape (WR5-5CSP) (monoscope portions).

(Adjustment Method)

1. Rotate the centering magnet until A=B and C=D.
2. Apply with lacquer to fix the centering magnet in place.

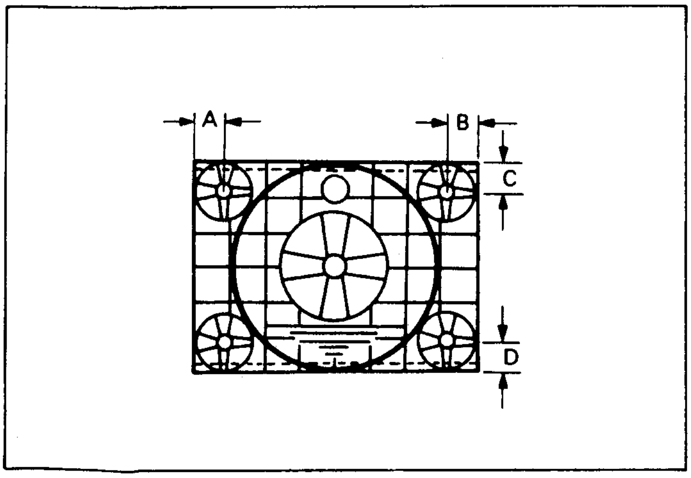


Fig. 4-4

4-9. CONTRAST ADJUSTMENT

Playback alignment tape (WR5-5CSP) (monoscope portions).

Oscilloscope: TP9502

(Adjustment Method)

Adjust the voltage level to 6±0.1V with VR9503.

Note: This is measured at the right edge of V period.

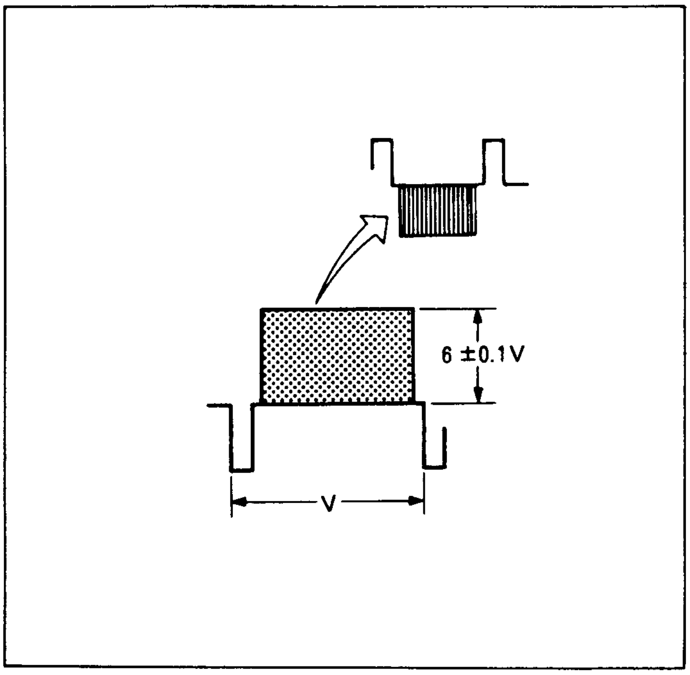


Fig. 4-5.

4-10. BRIGHTNESS ADJUSTMENT

Playback alignment tape (WR5-5CSP).

(Adjustment Method)

Rotate VR9504 to adjust for the proper brightness.

4-11. FOCUS ADJUSTMENT

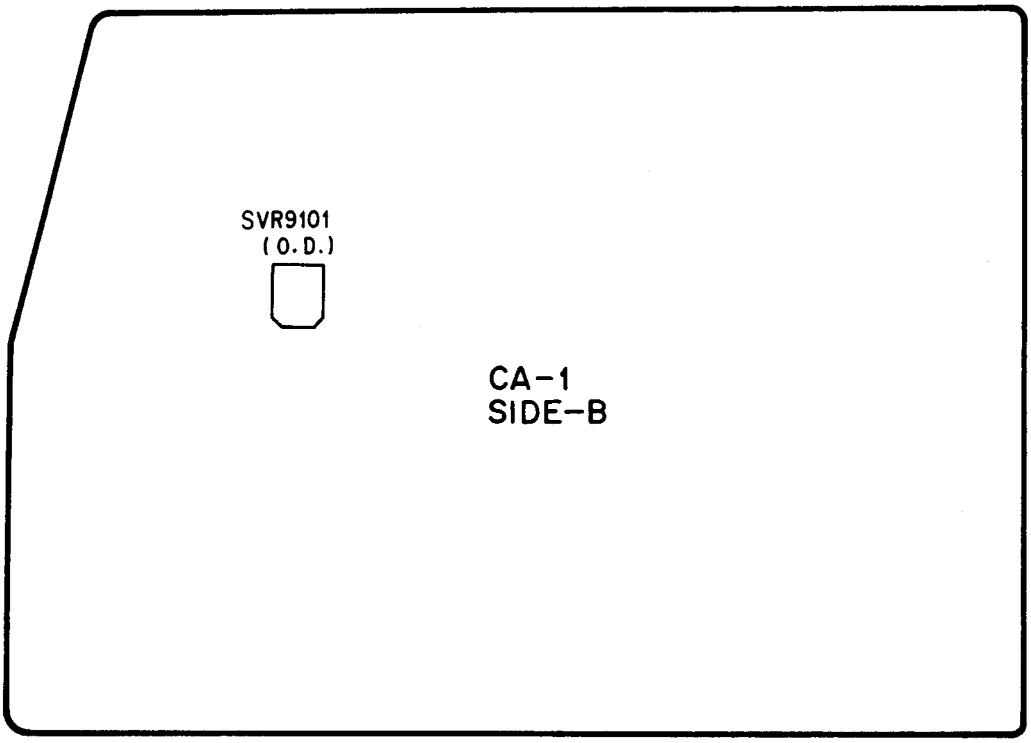
Playback alignment tape (WR5-5CSP) (monoscope portions).

(Adjustment Method)

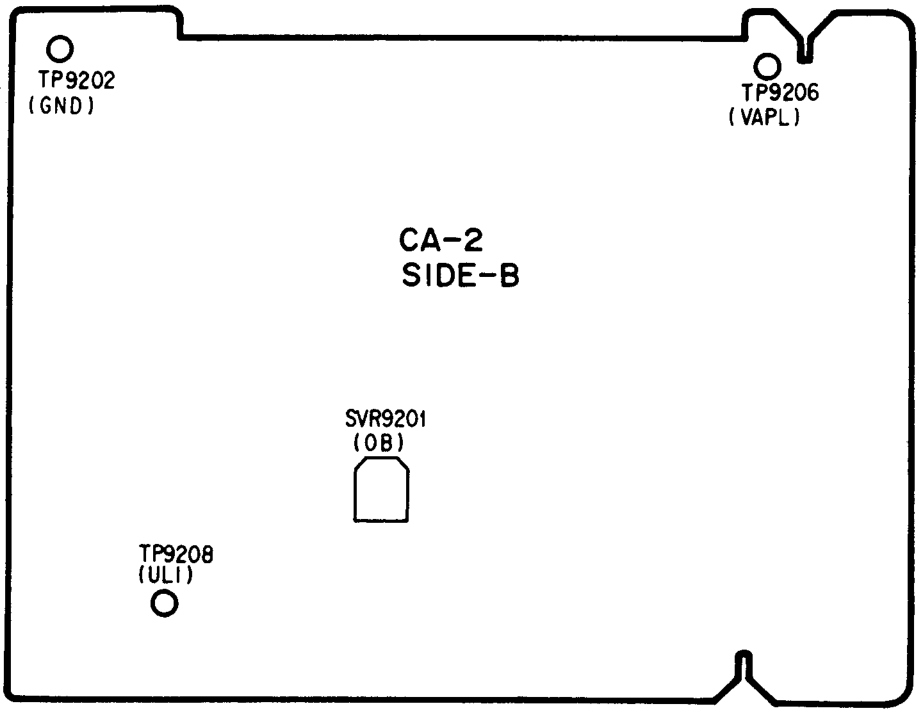
Rotate VR9505 to obtain optimum resolution of the monoscope pattern.

5. TP, SVR LOCATIONS

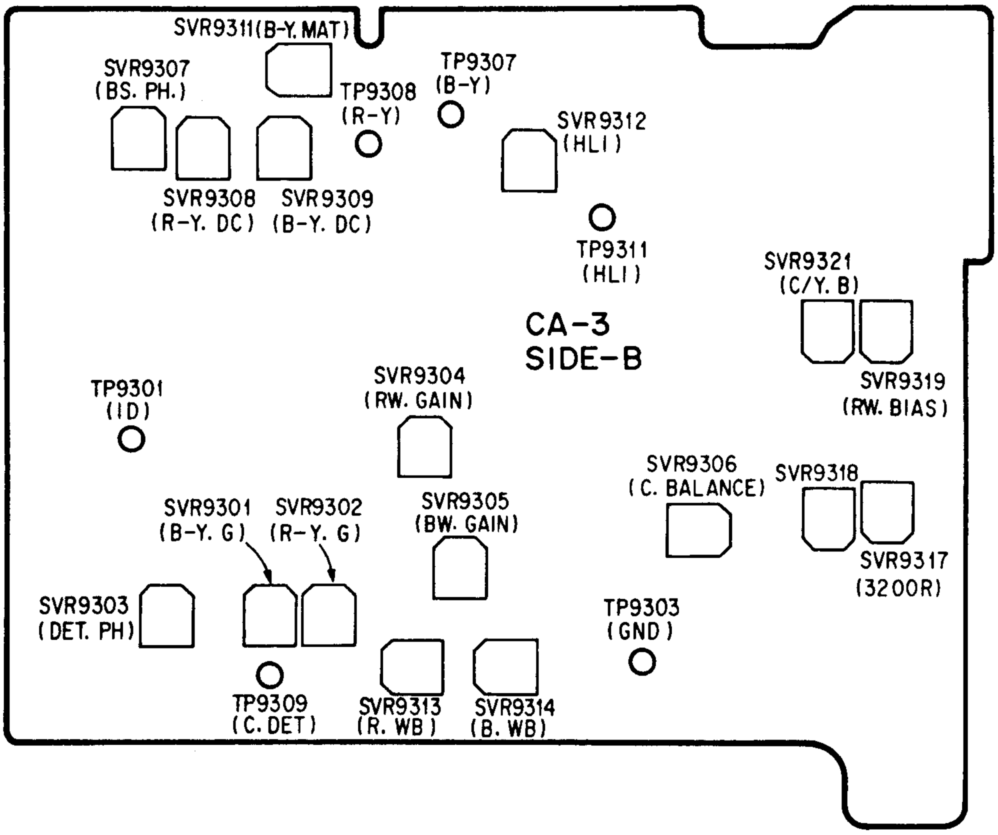
CA-1 Board (B side)


SVR9101
(O.D.)
CA-1
SIDE-B

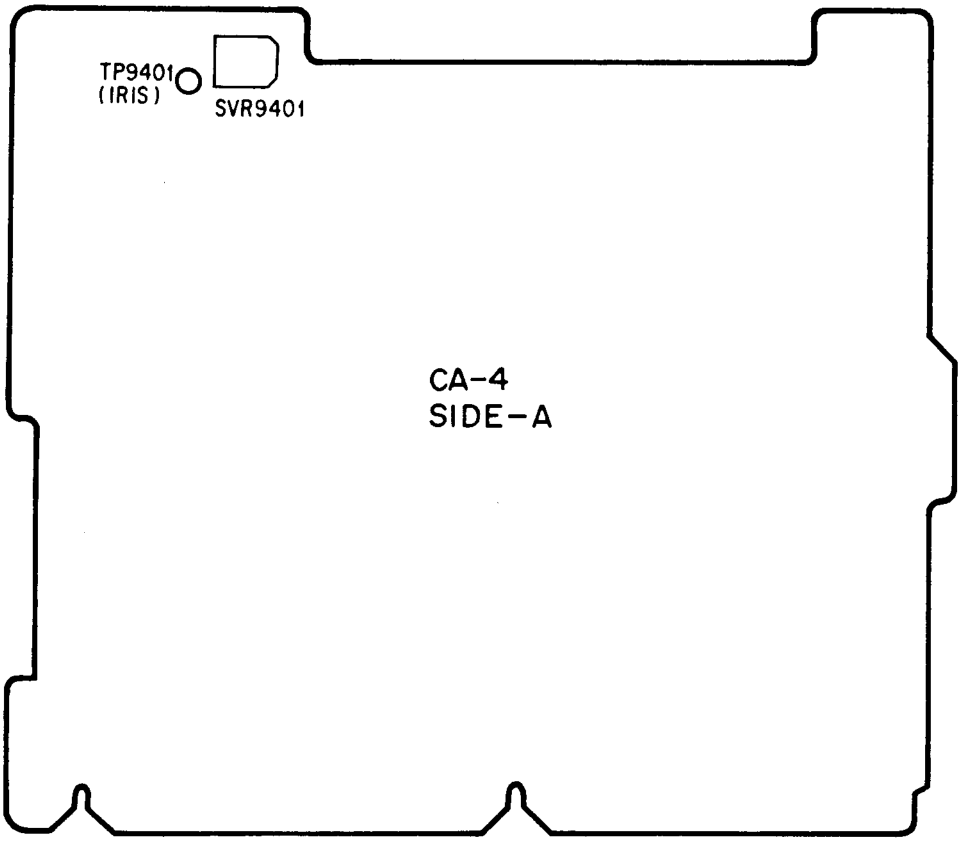
CA-2 Board (B side)


TP9202
(GND)
TP9206
(VAPL)
CA-2
SIDE-B
SVR9201
(OB)
TP9208
(ULI)

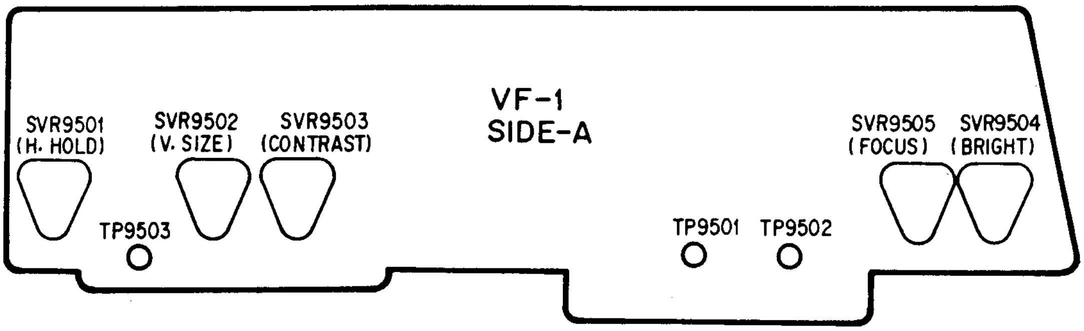
CA-3 Board (B side)


SVR9311(B-Y. MAT)
SVR9307
(BS. PH.)
TP9308
(R-Y)
TP9307
(B-Y)
SVR9312
(HLI)
SVR9308
(R-Y. DC)
SVR9309
(B-Y. DC)
TP9311
(HLI)
SVR9321
(C/Y. B)
CA-3
SIDE-B
SVR9319
(RW. BIAS)
TP9301
(ID)
SVR9304
(RW. GAIN)
SVR9306
(C. BALANCE)
SVR9318
SVR9301
(B-Y. G)
SVR9302
(R-Y. G)
SVR9305
(BW. GAIN)
SVR9317
(3200R)
SVR9303
(DET. PH)
TP9303
(GND)
TP9309
(C. DET)
SVR9313
(R. WB)
SVR9314
(B. WB)

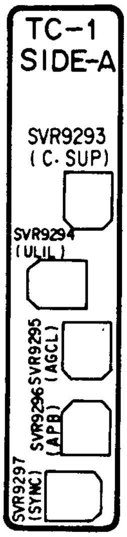
CA-4 Board (A side)


TP9401
(IRIS)
SVR9401
CA-4
SIDE-A

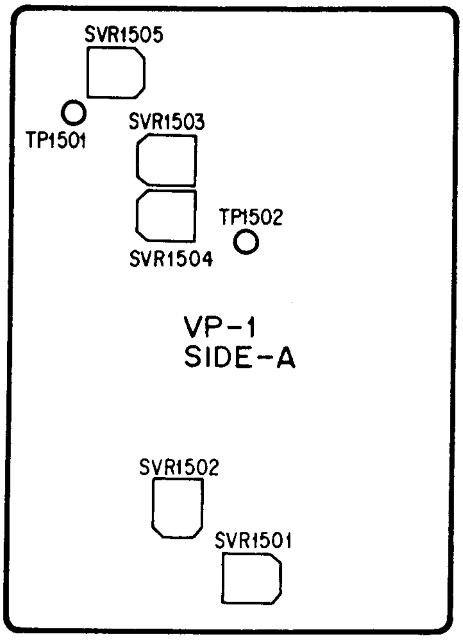
VF-1 Board (A side)


VF-1
SIDE-A
SVR9501
(H. HOLD)
SVR9502
(V. SIZE)
SVR9503
(CONTRAST)
TP9503
TP9501
TP9502
SVR9505
(FOCUS)
SVR9504
(BRIGHT)

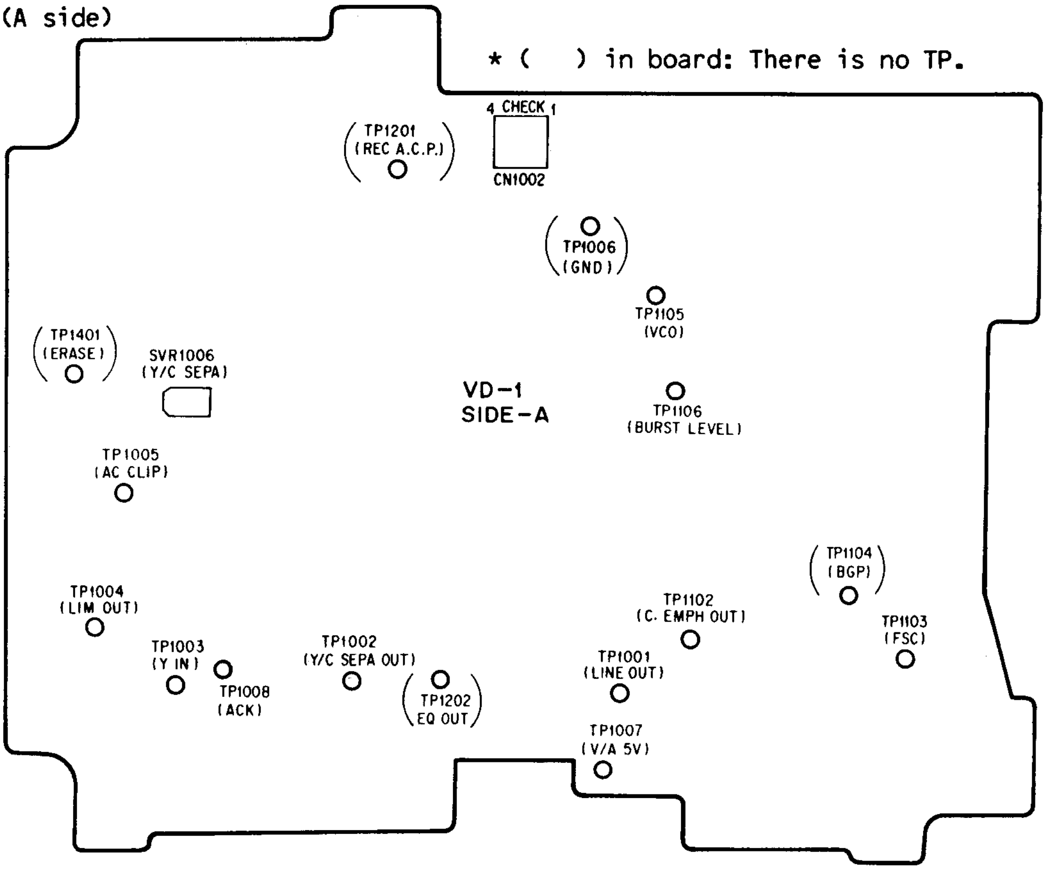
TC-1 Board (A side)


TC-1
SIDE-A
SVR9293
(C. SUP)
SVR9294
(ULIL)
SVR9295
(AGCL)
SVR9296
(APB)
SVR9297
(SYNC)

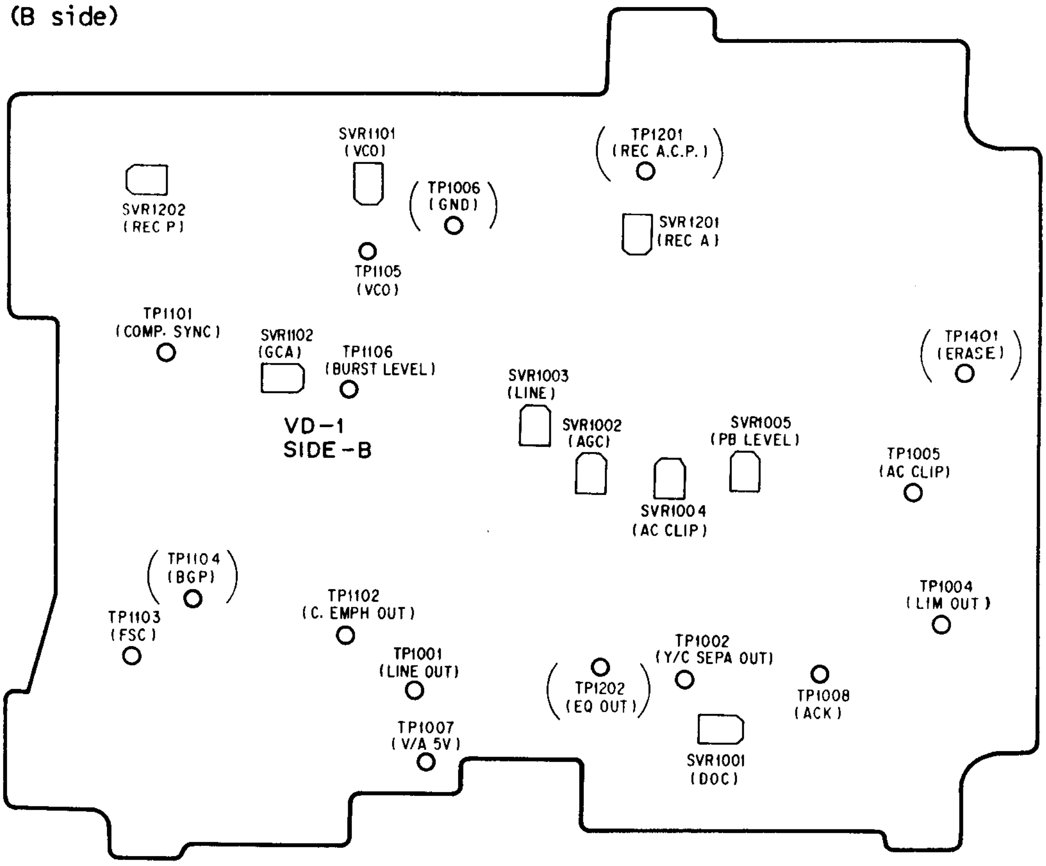
VP-1 Board (A side)


SVR1505
TP1501
SVR1503
TP1502
SVR1504
VP-1
SIDE-A
SVR1502
SVR1501

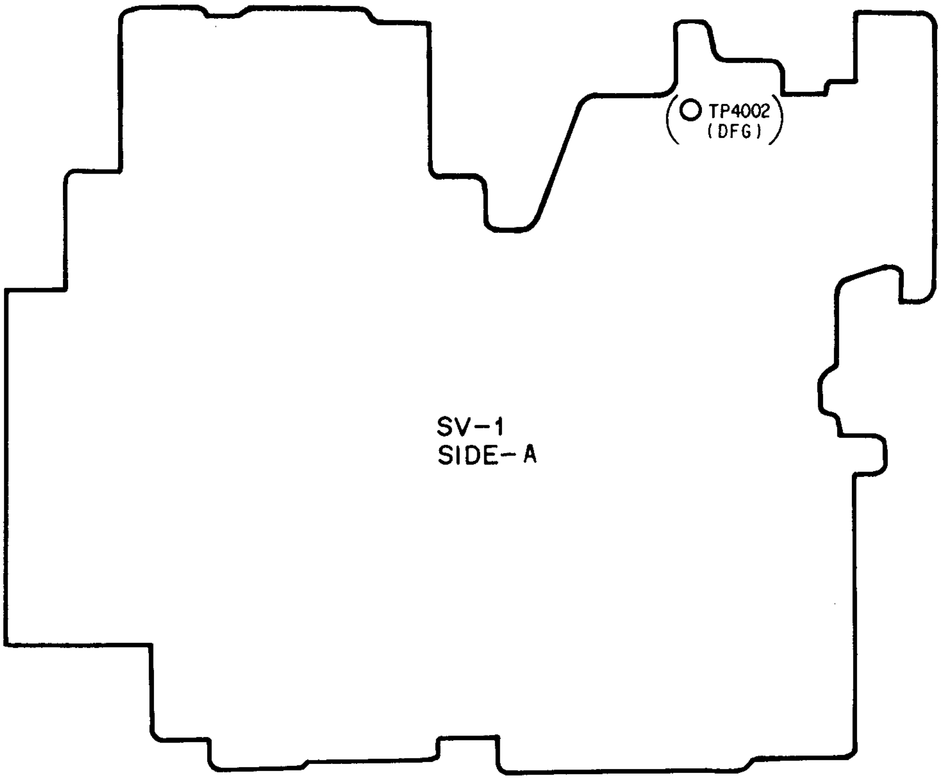
VD-1 Board (A side)


* (   ) in board: There is no TP.
4 CHECK 1
CN1002
TP1201 (REC A.C.P.)
TP1006 (GND)
TP1105 (VCO)
TP1401 (ERASE)
SVR1006 (Y/C SEPA)
VD-1 SIDE-A
TP1106 (BURST LEVEL)
TP1005 (AC CLIP)
TP1104 (BGP)
TP1004 (LIM OUT)
TP1102 (C. EMPH OUT)
TP1103 (FSC)
TP1003 (Y IN)
TP1008 (ACK)
TP1002 (Y/C SEPA OUT)
TP1202 EQ OUT
TP1001 (LINE OUT)
TP1007 (V/A 5V)

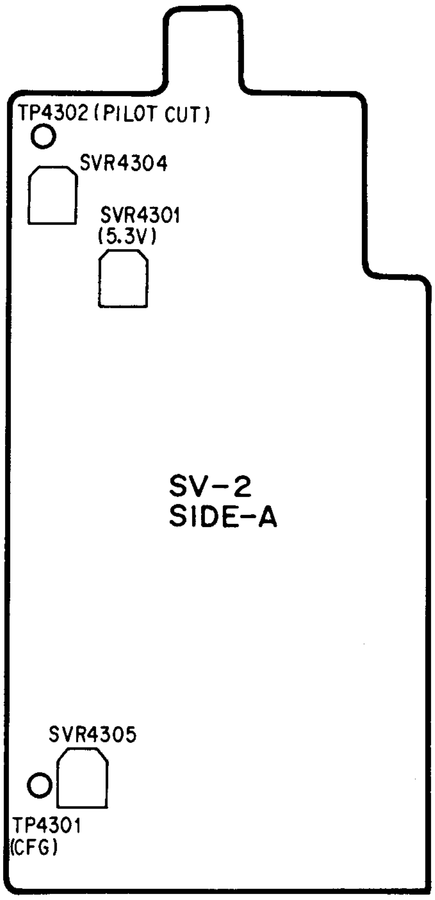
VD-1 Board (B side)


SVR1101 (VCO)
SVR1202 (REC P)
TP1006 (GND)
TP1201 (REC A.C.P.)
SVR1201 (REC A)
TP1105 (VCO)
TP1101 (COMP. SYNC)
SVR1102 (GCA)
TP1106 (BURST LEVEL)
SVR1003 (LINE)
TP1401 (ERASE)
VD-1 SIDE-B
SVR1002 (AGC)
SVR1005 (PB LEVEL)
TP1005 (AC CLIP)
SVR1004 (AC CLIP)
TP1104 (BGP)
TP1004 (LIM OUT)
TP1103 (FSC)
TP1102 (C. EMPH OUT)
TP1002 (Y/C SEPA OUT)
TP1001 (LINE OUT)
TP1202 (EQ OUT)
TP1008 (ACK)
TP1007 (V/A 5V)
SVR1001 (DOC)

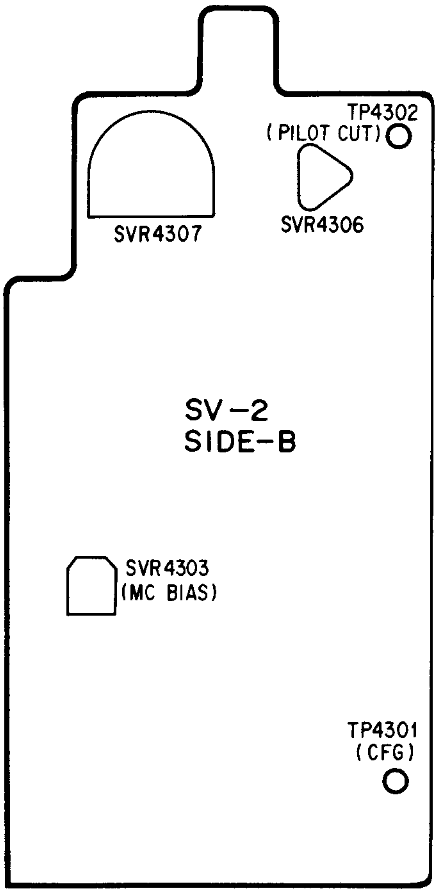
SV-1 Board (A side)


TP4002
(DFG)
SV-1
SIDE-A

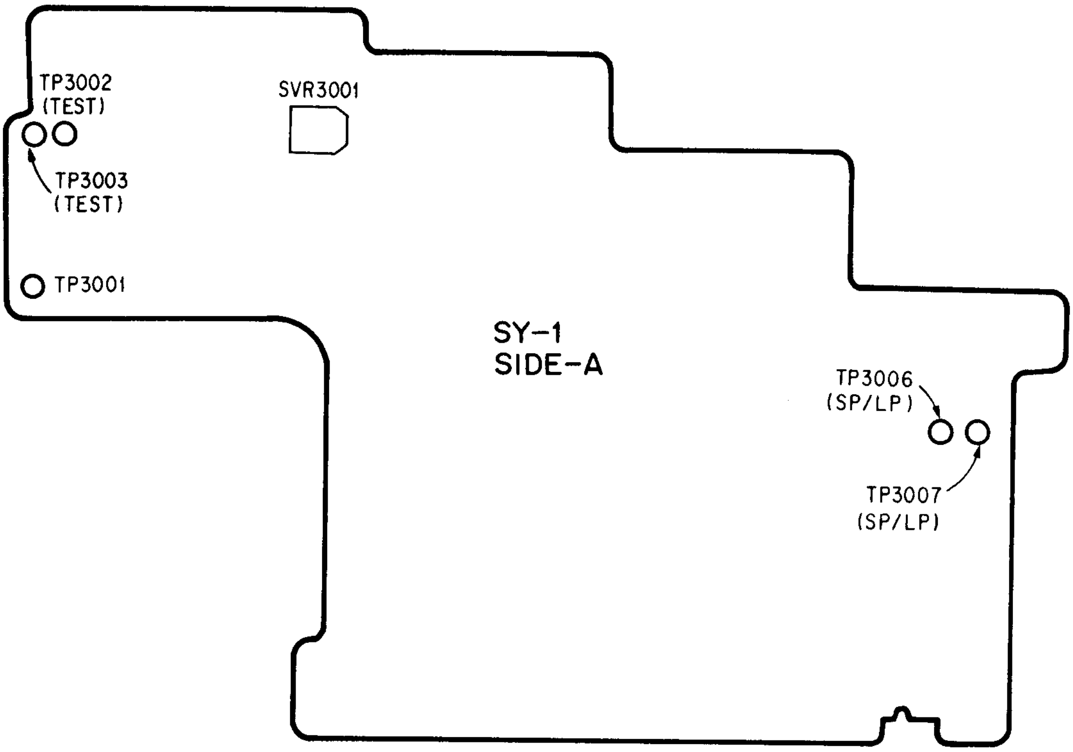
SV-2 Board (A side)


TP4302 (PILOT CUT)
SVR4304
SVR4301
(5.3V)
SV-2
SIDE-A
SVR4305
TP4301
(CFG)

SV-2 Board (B side)


TP4302
(PILOT CUT)
SVR4307
SVR4306
SV-2
SIDE-B
SVR4303
(MC BIAS)
TP4301
(CFG)

SY-1 Board (A side)


TP3002
(TEST)
SVR3001
TP3003
(TEST)
TP3001
SY-1
SIDE-A
TP3006
(SP/LP)
TP3007
(SP/LP)

SANYO Electric Co., Ltd.
OSAKA, JAPAN

'87/July/1290/CO Printed in Japan

PARTS LIST &
CIRCUIT DIAGRAMS

SANYO

VM-D1P

8Fo9

8mm CAMCORDER

BF 09

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A11700 ER-4P/G, EX, GPX, E, A, NZ, ME

REFERENCE No. WM- 20984

PRODUCT SAFETY NOTICE

The components designated by a symbol (⚠) in this schematic diagram designates components whose value are of special significance to product safety. Should any component designated by a symbol need to be replaced, use only the part designated in the Parts List. Do not deviate from the resistance, wattage and voltage ratings shown.

NOTE : Parts order must contain Model Number, Part Number and Description.

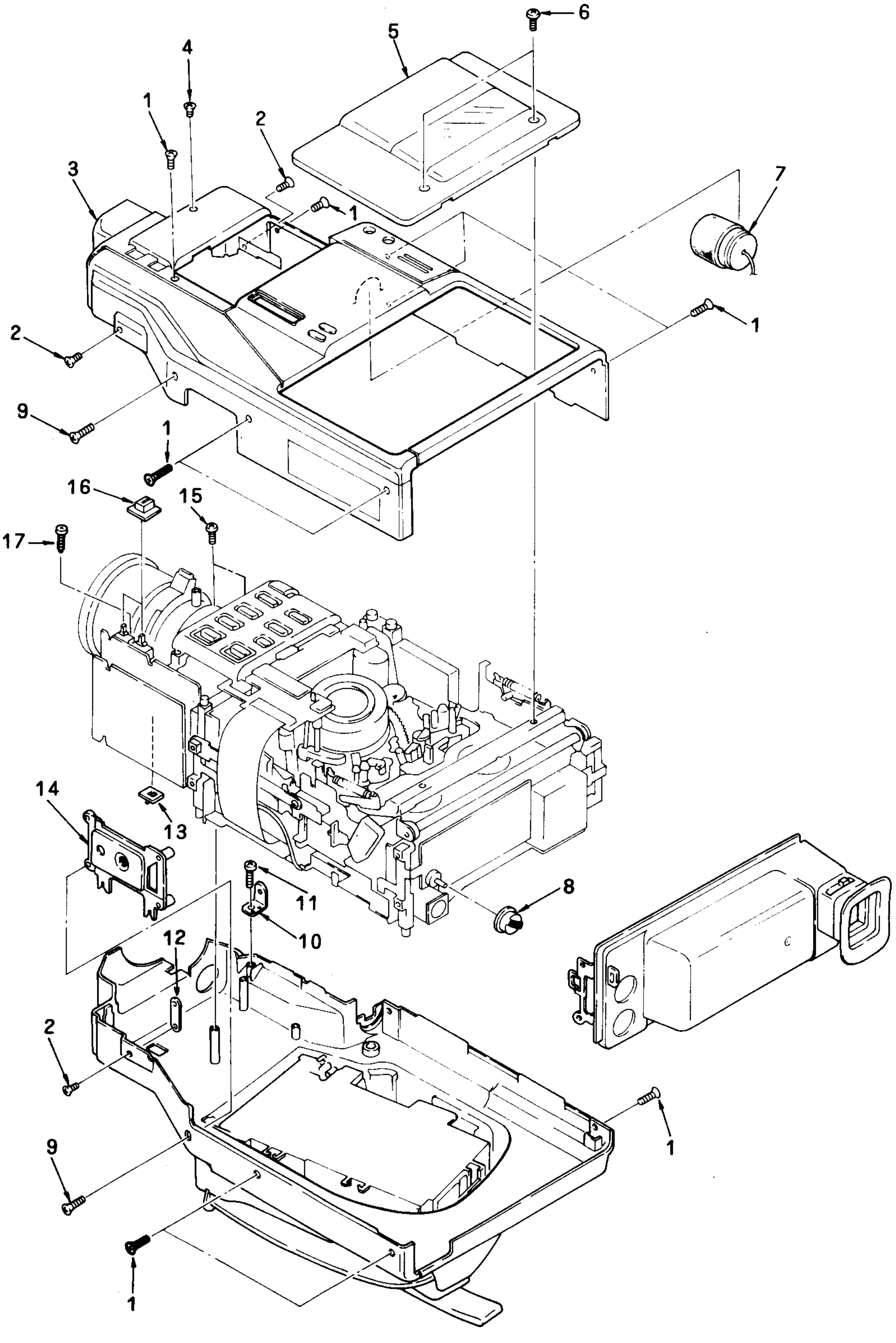
ACCESSORIES & PACKING MATERIALS

Ref. No.	Part No.	Description
	126-6-132T-01403	INNER CORR CASE
	126-6-411T-07700	INST MANUAL (GERMANY, EUROPE)
	126-6-411T-07800	INST MANUAL, ACC (GERMANY, EUROPE)
	126-6-411T-11200	INST MANUAL, (U.K)
	126-6-411T-11300	INST MANUAL, ACC (U.K)
	126-6-411T-09300	INST MANUAL (AUS)
	126-6-411T-09400	INST MANUAL, ACC (AUS)
	126-6-411T-12900	INST MANUAL (NEW-Z)
	126-6-411T-13000	INST MANUAL, ACC (NEW-Z)
	126-6-411T-12700	INST MANUAL (M-EAST)
	126-6-411T-12800	INST MANUAL, ACC (M-EAST)
	126-6-411T-09200	INST MANUAL (PX)
	126-6-411T-09300	INST MANUAL, ACC (PX)
	126-0-176T-00204	BAND ASSY
	126-6-144T-01500	FORM PLASTIC CASE, UPPER
	126-6-144T-01600	FORM PLASTIC CASE, LOWER
	126-6-251T-00400	IND POLYE COVER, UNIT
	126-6-251T-00600	IND POLYE COVER, CASE
	126-2-191T-00100	BATTERY CASE
	143-2-198T-00200	DRIVER, STILL ADJ
	126-0-181T-01411	CARRYING CASE (EXCEPT U.K)

Ref. No.	Part No.	Description
	126-0-181T-01471	CARRYING CASE (U.K)
	126-3-1011-	AC PACK (GERMAMY)
	126-3-1015-	AC PACK (EUROPE)
	126-3-1012-	AC PACK (U.K)
	126-3-1020-	AC PACK (AUS, NEW-Z)
	126-0-338T-10600	AC PACK (M-EAST)
	126-0-338T-10400	AC PACK (PX)
	126-0-338T-70103	BATTERY CHARGE ADAPTOR
	126-0-116T-00700	RF ADAPTOR (GERMANY, EUROPE, M-EAST, PX)
	126-0-116T-01701	RF ADAPTOR (U.K)
	126-0-116T-01100	RF ADAPTOR (AUS)
	126-0-116T-01200	RF ADAPTOR (NEW-Z)
	126-3-2001-	BATTERY PACK
	4-243F-30600	CONNECTION CORD
	126-6-478T-00403	STICKER (GERMANY, EUROPE, U.K, AUS, NEW-Z)
	126-6-478T-00404	STICKER (M-EAST)
	126-6-478T-00700	STICKER (PX)

CABINET 1

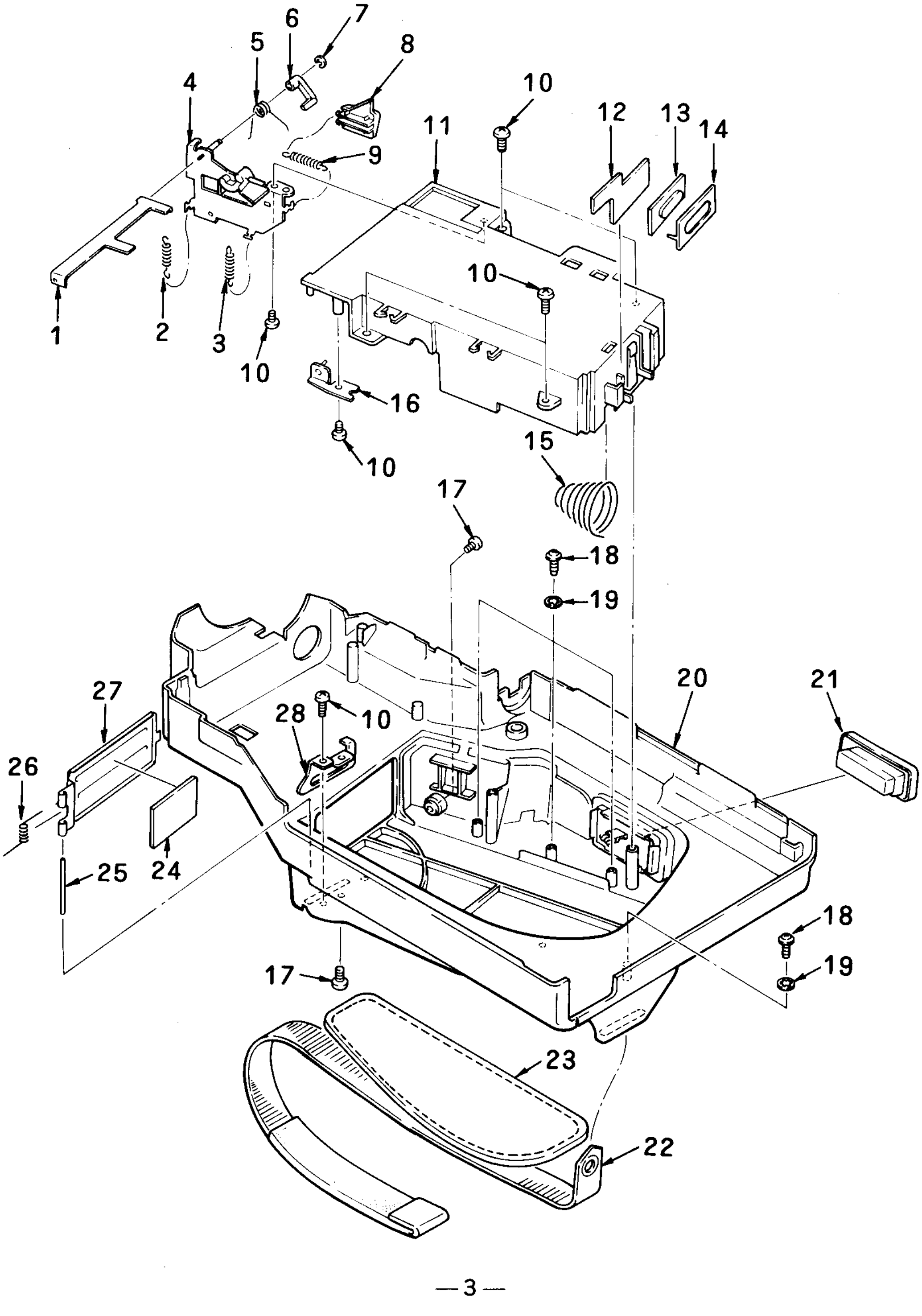
Ref. No.	Part No.	Description
1	411 105 0404	SCR S-TPG FLT 2.3X8
2	412 022 5701	SCR FLT 2X4
3	126-9-111T-00807	CABINET ASSY, LEFT
4	412 022 5800	SCR FLT 2X6
5	126-9-129T-00301	SIDE LID ASSY
6	412 015 4100	SPECIAL SCREW
7	126-0-153F-00200	MIC ASSY
8	126-2-163T-00400	KNOB, SLOW TRACKING
9	411 105 0503	SCR S-TPG FLT 2.3X10
10	126-2-211T-00100	BRACKET CABINET
11	411 025 4506	SCR S-TPG BIN 2X8
12	126-2-211T-00200	BRACKET CABINET
13	126-2-164T-02100	SLIDE KNOB, WHITE BALACE
14	126-0-210T-01000	BRACKET, TRIPOD SCREW MOUNT
15	411 026 0002	SCR S-TPG PAN 2.3X6
16	126-2-164T-01800	SLIDE KNOB, FOCUS/IRIS
17	411 105 0602	SCR S-TPG PAN+FLG 2X6



CABINET 2

Ref. No.	Part No.	Description
1	126-2-614T-00200	LEVER LOCK, BATTERY
2	126-2-851T-04800	SPRING COIL
3	126-2-851T-04900	SPRING COIL
4	126-0-747T-00400	BRACKET LEVER ASSY, BATTERY
5	126-2-851T-04500	SPRING COIL
6	126-2-741T-04000	LEVER
7	411 015 7401	RING E 1.2
8	126-2-164T-02000	SLIDE KNOB, BATTERY REMOVAL
9	126-2-851T-04700	SPRING COIL
10	411 025 4209	SCR S-TPG BIN 2X6
11	126-9-335T-00100	BATTERY COMPARTMENT ASSY
12	126-0-230F-08450	TC3 ASSY
13	126-2-432T-00200	RUBBER CONTACT
14	126-2-464T-01400	FIXER
15	126-2-851T-04200	SPRING, REMOVAL BATTERY
16	126-0-747T-00500	BRACKET LEVER ASSY

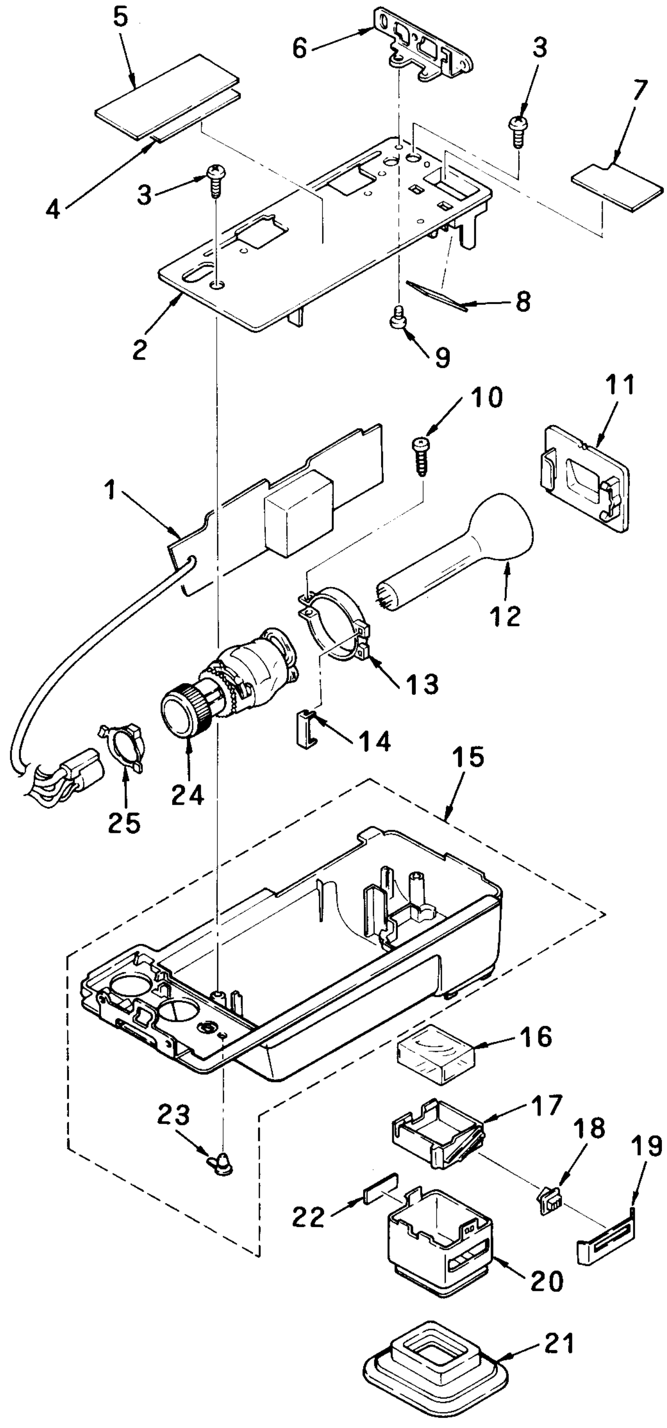
Ref. No.	Part No.	Description
17	412 022 5602	SCR BIN 2X5
18	411 105 0602	SCR S-TPG PAN+FLG 2X6
19	411 086 9205	WASHER IN TW 2
20	126-9-111T-00707	CABINET ASSY, RIGHT
21	126-9-365T-00400	ZOOM SWITCH ASSY
22	126-0-176T-00100	BAND ASSY
23	126-0-830T-00100	PAD ASSY
24	126-2-352T-04000	SPACER
25	126-2-751T-08500	SHAFT
26	126-2-851T-04600	SPRING COIL
27	126-2-128T-00200	BATTERY LID
28	126-2-178T-00300	BRACKET BAND



VIEWFINDER

Ref. No.	Part No.	Description
1	126-0-230F-07871	VF1 ASSY
2	126-2-111T-01000	CABINET
3	411 025 4506	SCR S-TPG BIN 2X8
4	126-2-322T-05100	SHIELD PLATE
5	126-2-327T-03100	INSULATOR
6	126-2-178T-00500	BRACKET BAND
7	126-2-246T-03700	SHEET
8	126-2-863T-00300	MIRROR
9	412 022 5909	SCR PAN 2X6
10	411 025 8603	SCR S-TPG PAN 2X10
11	126-2-210T-01100	BRACKET, CRT
12	4-212F-00200	CRT
13	126-2-464T-01100	FIXER, CRT
14	126-2-464T-01501	BRACKET FIXER
15	126-9-111T-00901	CABINET ASSY

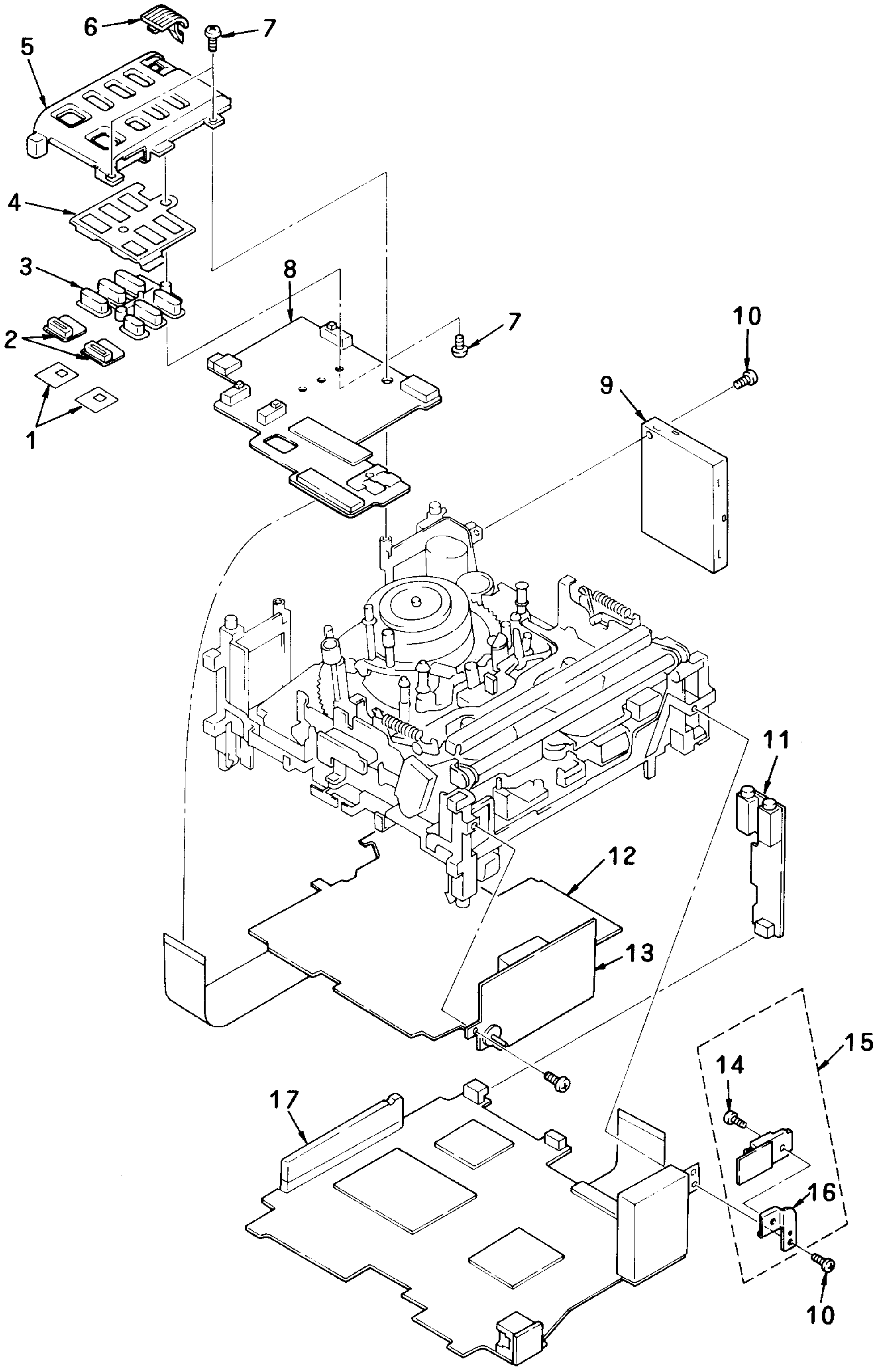
Ref. No.	Part No.	Description
16	126-0-216F-00500	LENS ASSY
17	126-2-114T-00500	FRAME
18	126-2-164T-01901	SLIDE KNOB
19	126-2-246T-03600	SHEET
20	126-2-681T-00400	SLEEVE
21	126-2-286T-00700	HOOD
22	126-2-246T-03500	SHEET
23	126-2-174T-00900	STAND (ADJ HOLE)
24	4-276F-00300	DEFLECTION YOKE
25	126-2-464T-01200	FIXER, CONNECTOR



OPERATION PANEL AND P.C.B

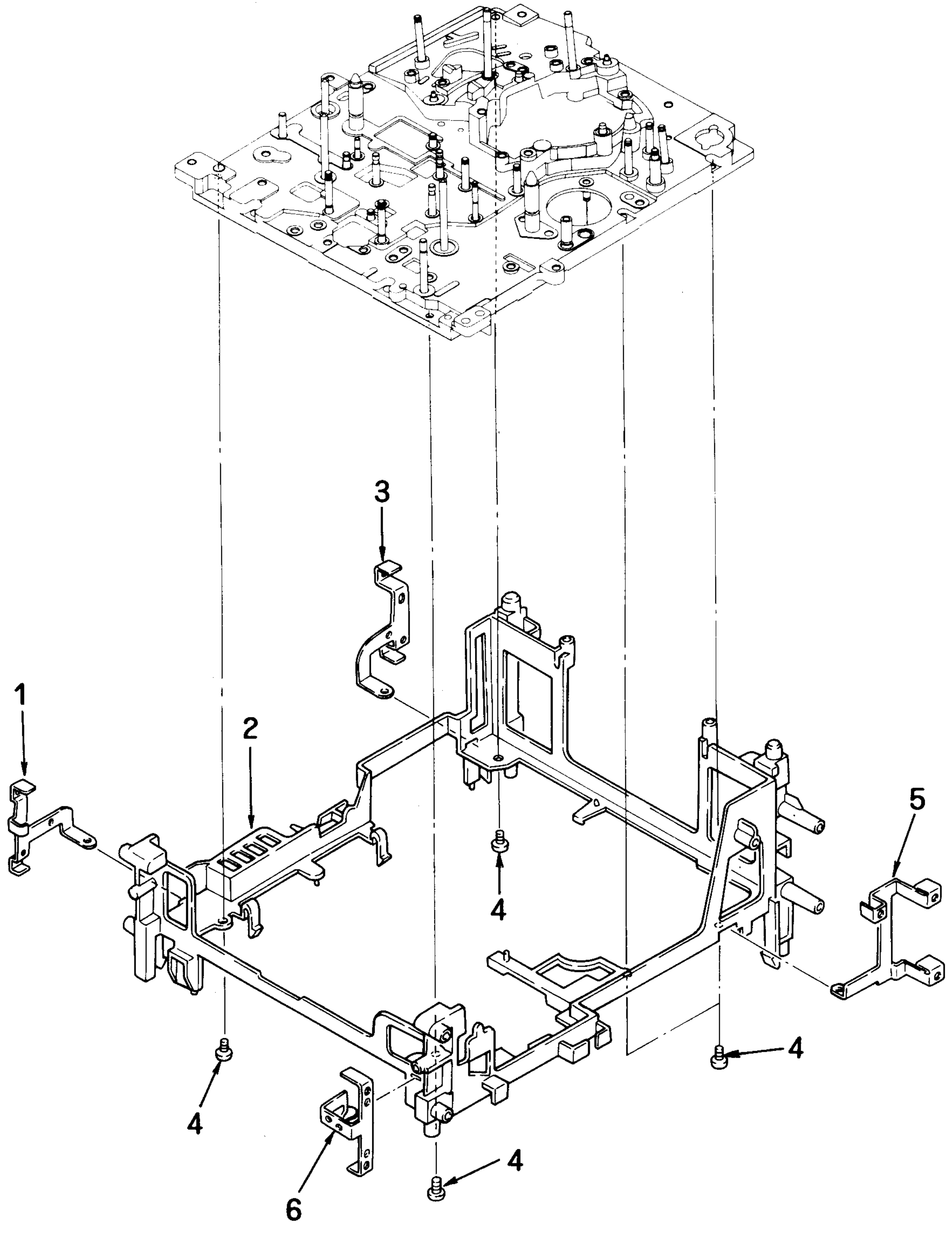
Ref. No.	Part No.	Description
1	126-2-246T-03400	SHEET
2	126-2-164T-01700	SLIDE KNOB, EJECT/REC
3	126-2-161T-01501	PUSH BUTTON
4	126-2-324T-01500	EARTH PLATE
5	126-9-123T-00101	SIDE PANEL ASSY
6	126-2-164T-01601	SLIDE KNOB, POWER
7	411 105 0602	SCR FLT 2X6
8	126-0-230F-07071	SY1 ASSY
9	126-0-230F-06850	VP1 ASSY
10	411 021 0601	SCR BIN 2X5
11	126-0-230F-06971	AD1 ASSY

Ref. No.	Part No.	Description
12	126-0-230F-07151	SV1 ASSY
13	126-0-230F-07251	SV2 ASSY
14	411 002 6004	SCR PAN 2.6X6
15	126-0-230F-12071	TB3 ASSY
16	126-2-310T-00600	BRACKET, TB3
17	126-0-230F-11950	VD1 ASSY



SUB CHASSIS

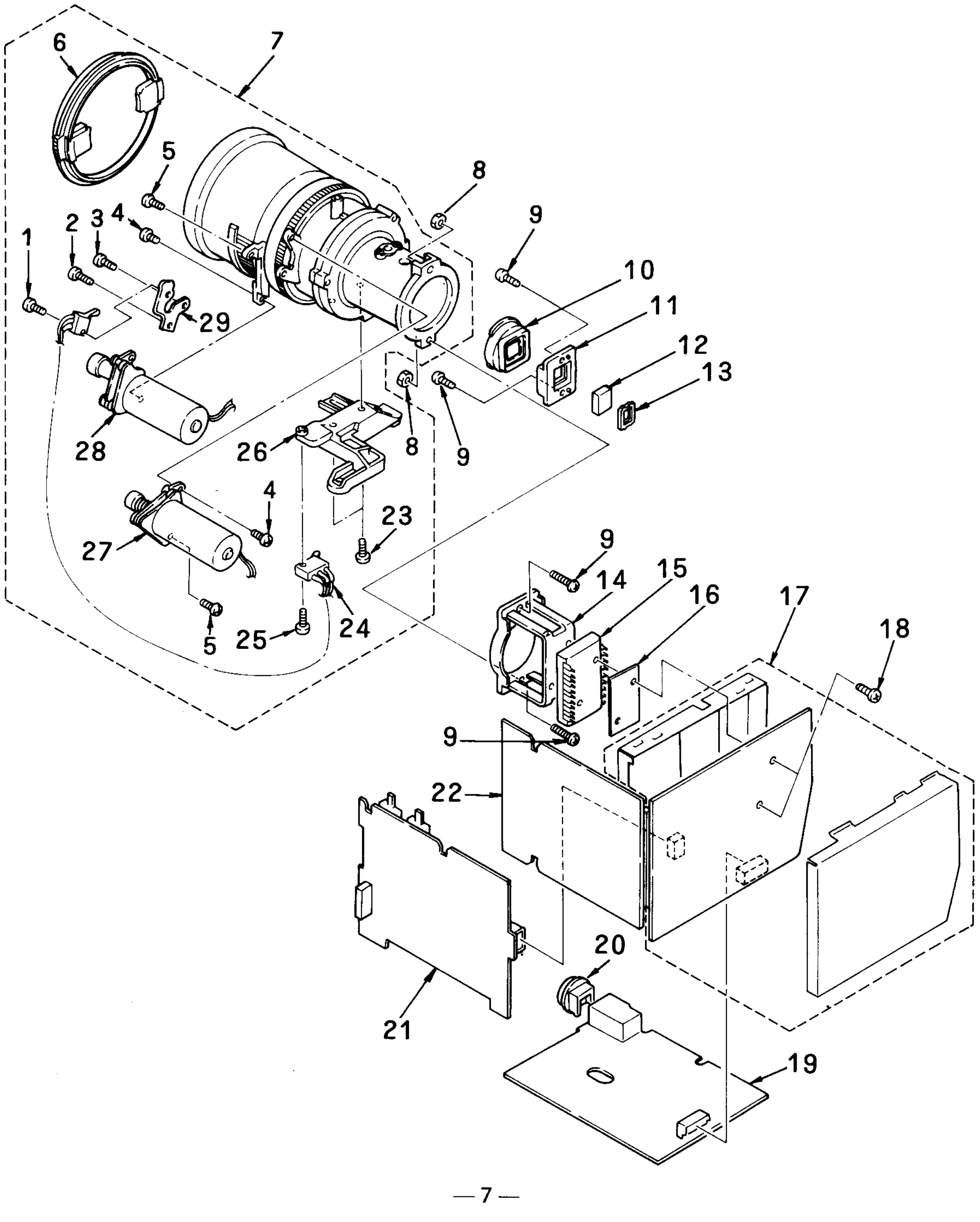
Ref. No.	Part No.	Description
1	126-2-324T-01200	EARTH PLATE
2	126-2-312T-00200	SUB CHASSIS
3	126-2-324T-01300	EARTH PLATE
4	126-2-324T-01000	EARTH PLATE
5	411 030 5703	SCR BIN 2X4
6	126-2-324T-01100	EARTH PLATE



CAMERA

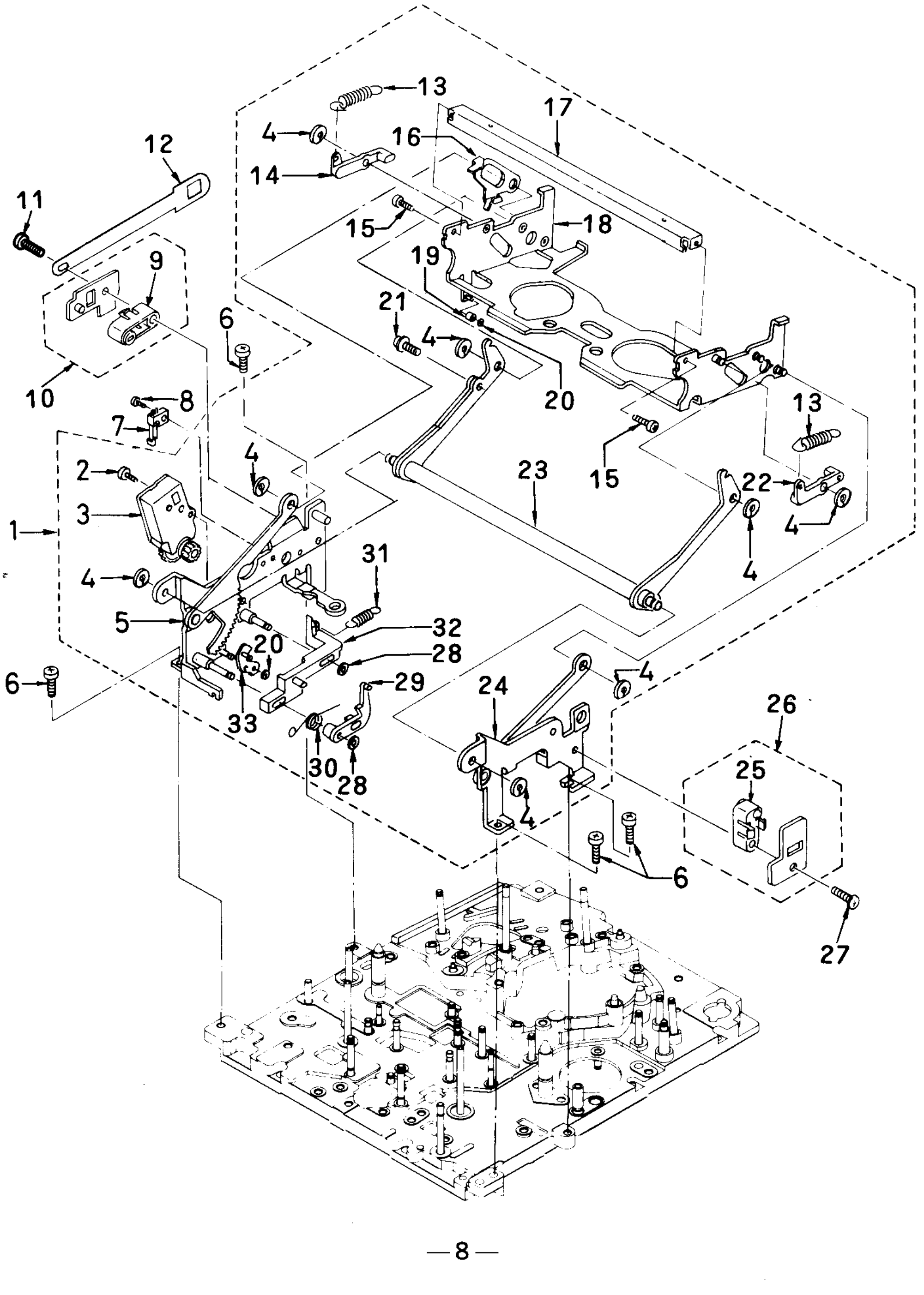
Ref. No.	Part No.	Description
1	412 022 540	SCR PAN 2X6
2	412 022 510	SCR PAN 1.7X3
3	412 022 520	SCR PAN 1.7X3
4	412 022 490	SCR PAN 1.7X4
5	412 022 500	SCR PAN 1.7X4
6	126-2-287T-00200	LENS CAP
7	4-216F-00600	LENS
8	411 054 4508	NUT HEX 2
9	411 039 3304	SCR PAN 2X7
10	126-2-135T-01600	COVER
11	126-2-181T-01300	CASE, OPTICAL FILTER
12	126-2-237T-00300	OPTICAL FILTER
13	126-2-352T-03600	SPACER
14	126-2-351T-02700	BRACKET MTG, CCD
15	4-213F-50400	IMAGE SENSOR (CCD)
16	126-2-327T-02700	INSULATOR
17	126-0-230F-07451	CA1 ASSY

Ref. No.	Part No.	Description
18	411 039 0105	SCR PAN 2X3
19	126-0-230F-07651	CA3 ASSY
20	126-2-132T-00900	SIGN WINDOW
21	126-0-230F-07751	CA4 ASSY
22	126-0-230F-07551	CA2 ASSY
23	412 022 530	SCR PAN 2X3
24	4-231F-91100	SWITCH ASSY
25	412 022 550	SCR TPG FLT 1.7X7
26	126-2-365T-00700	BRACKET, MOTOR
27	126-9-527F-10700	ZOOM MOTOR
28	126-9-527F-10600	FOCUS MOTOR
29	126-2-365T-00600	PLATE



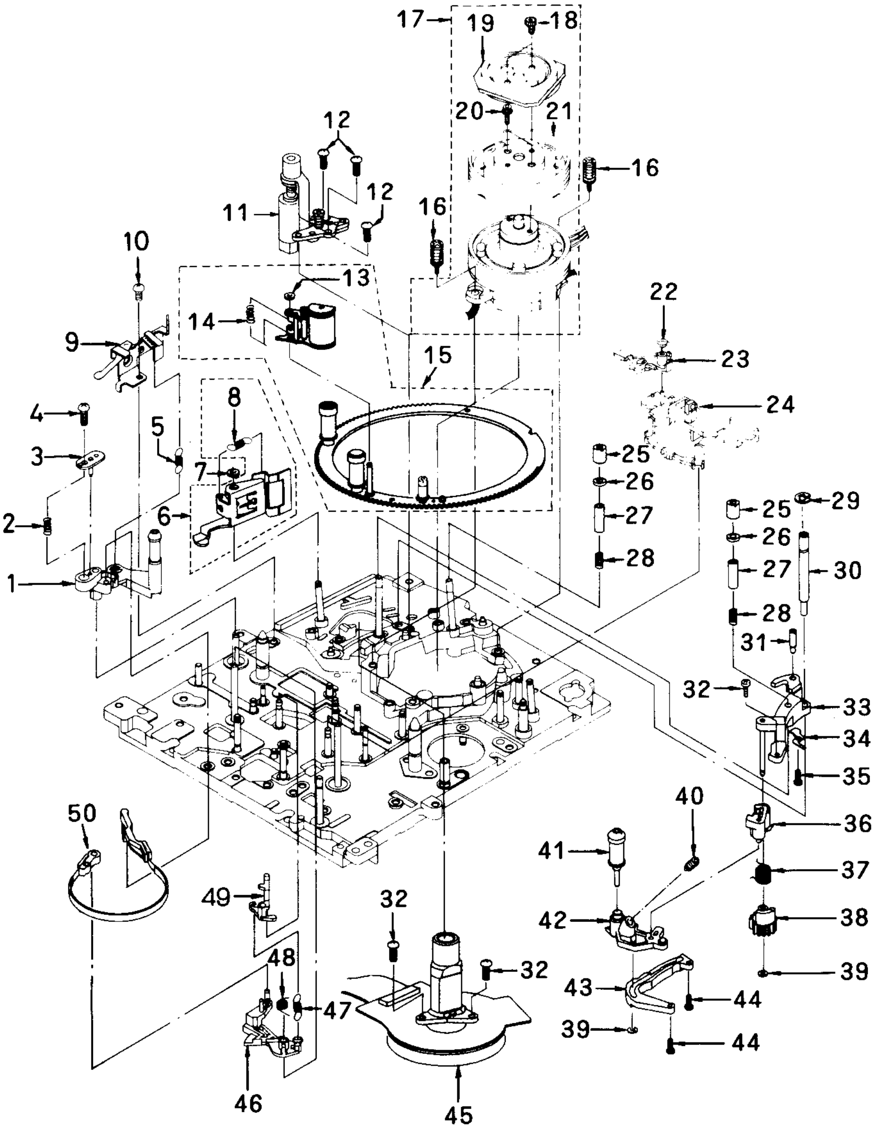
CASSETTE COMPARTMENT

Ref. No.	Part No.	Description
1	126-9-351T-00221	CASSETTE COMPARTMENT ASSY
2	411 002 5007	SCR PAN 2X6
3	126-2-877T-00200	DAMPER
4	412 015 9600	SPECIAL WASHER
5	126-0-174T-00121	STAND ASSY
6	411 039 0105	SCP PAN 2X3
7	126-4-231F-90100	SPECIAL SWITCH
8	411 018 2700	SCR PAN PCS 1.7X3
9	126-2-351T-00300	BRACKET MTG, TB 1
10	126-0-230F-07950	TB1 ASSY
11	411 030 4300	SCR BIN 2X10
12	126-2-465T-00400	STOPPER
13	126-2-851T-00400	SPRING COIL, HOLDER UP
14	126-2-741T-00400	LEVER, PRESS, LEFT
15	411 022 7708	SCR S-TPG PAN 2X5
16	126-2-310T-00100	BRACKET, LOCK RELEASE
17	126-2-315T-00300	REINFORCEMENT
18	126-0-351T-00221	BRACKET MTG ASSY
19	126-2-662T-00100	ROLLER
20	412 021 9700	SPECIAL WASHER
21	411 002 4901	SCP PAN 2X4
22	126-2-741T-00500	LEVER, PRESS, RIGHT
23	126-0-743T-00121	ARM ASSY
24	126-0-174T-00221	STAND ASSY
25	126-2-351T-00400	BRACKET MTG, TB 2
26	126-0-230F-08050	TB2 ASSY
27	411 030 4409	SCR BIN 2X12
28	412 015 5206	SPECIAL WASHER
29	126-2-741T-00600	LOCK STANBY LEVER
30	126-2-851T-00600	SPRING, LOCK STANBY LEVER
31	126-2-851T-00500	SPRING COIL, EJECT LEVER
32	126-2-731T-00200	EJECT LEVER
33	126-0-741T-00300	LEVER ASSY



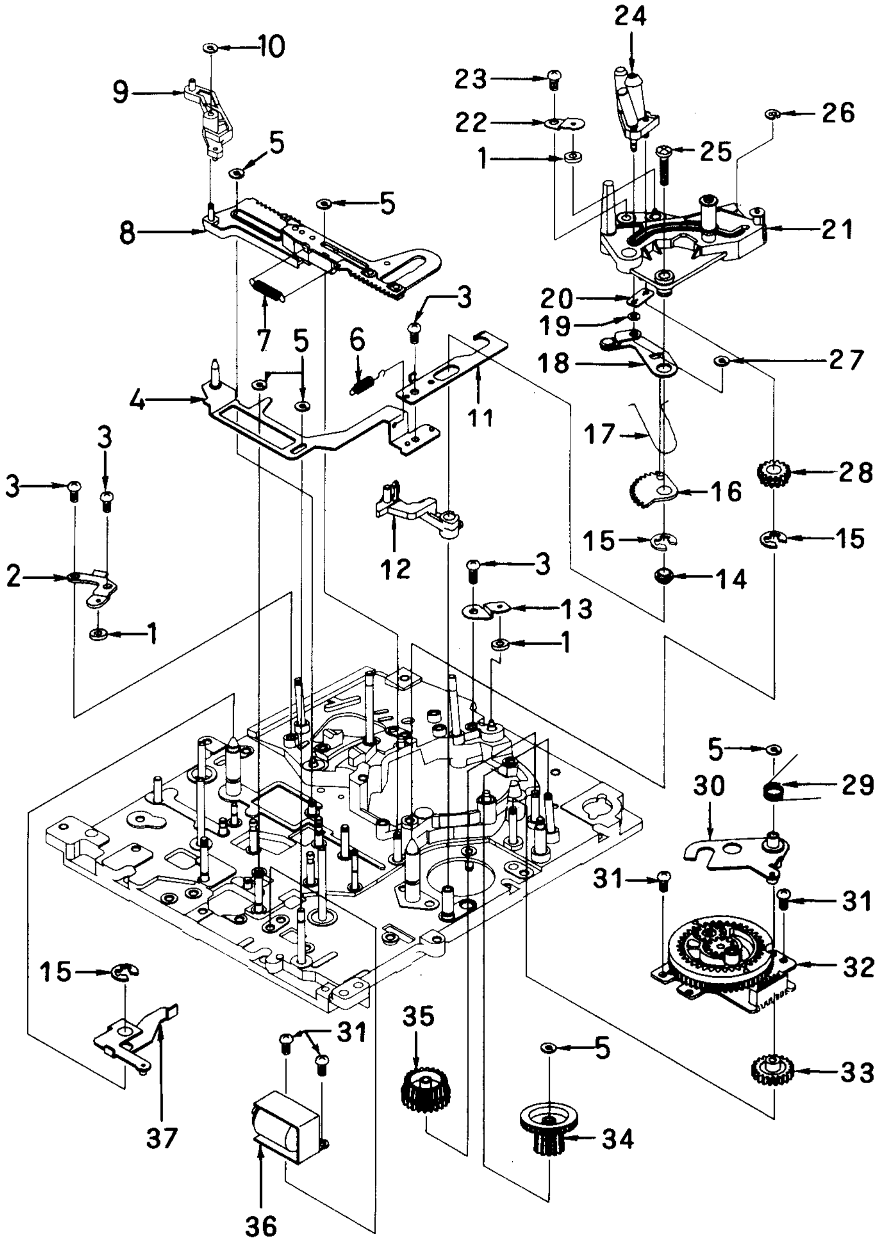
MECHANISM 1

Ref. No.	Part No.	Description
1	126-0-741T-01700	ARM, TENSION REGULATOR
2	126-2-851T-01900	SPRING, COMPRESSION
3	126-0-351T-01400	PLATE, TENSION REGULATOR
4	411 018 8009	SCR PAN PCS 2X6
5	126-2-851T-02100	SPRING, TENSION
6	126-0-741T-00800	ARM, PINCH PRESS
7	412 015 5206	SPECIAL WASHER
8	126-2-851T-00900	SPRING, TENSION
9	126-0-747T-00200	HOOK ASSEMBLY, SPRING
10	411 039 0105	SCR PAN 2X3
11	126-0-821T-00330	GUIDE, NO.5 ASSY
12	411 018 6906	SCR PAN PCS 2X3
13	412 015 5305	SPECIAL WASHER
14	126-2-851T-01000	SPRING, PINCH ROLLER
15	126-9-683T-00600	RING ASSY, LOADING
16	126-0-421T-01500	SPECIAL SCREW
17	126-9-5100-02502	CYLINDER ASSY
18	412 021 3401	SPECIAL SCREW
19	126-2-877T-00600	DAMPER
20	412 021 3302	SPECIAL SCREW
21	126-0-771T-01100	UPPER CYLINDER ASSY
22	126-2-851T-02600	SPRING, REV BRAKE
23	126-0-715T-00600	BRAKE LEVER
24	126-0-230F-08250	OT1 ASSY
25	412 021 7409	SPECIAL SCREW
26	412 021 9601	FLANGE, GUIDE
27	126-2-821T-00400	GUIDE, TAPE
28	126-2-851T-01300	SPRING, TAPE GUIDE
29	411 000 9700	RING E 2.5
30	412 021 8802	SPECIAL SCREW
31	126-2-421T-00600	ORDER SCREW
32	411 039 0709	SCR PAN 2X4
33	126-0-747T-00100	PRE-LOAD ASSY, LEFT
34	126-2-853T-01000	SPRING PLATE
35	411 099 6703	SCR PAN PCS 1.4X2
36	126-0-741T-00900	LEVER ASSY, NO.2 GUIDE
37	126-2-851T-01400	SPRING COIL
38	126-2-581T-00300	GEAR, NO.2 GUIDE
39	412 015 5305	SPECIAL WASHER
40	411 103 0505	SCR SET HEX-SCT 2X5
41	126-0-821T-00500	GUIDE, NO.2
42	126-0-822T-00300	BRACKET, NO.2 GUIDE
43	126-2-529T-00100	RAIL
44	411 019 5601	SCR PAN PCS 1.4X4
45	4-527F-50601	CAPSTAN MOTOR
46	126-2-741T-02000	ARM, BAND
47	126-2-851T-02400	SPRING, S HARD BRAKE
48	126-2-851T-02000	SPRING, TENSION REGULATOR
49	126-2-715T-00100	BRAKE, S HARD
50	126-9-711T-01100	BRAKE BAND ASSY



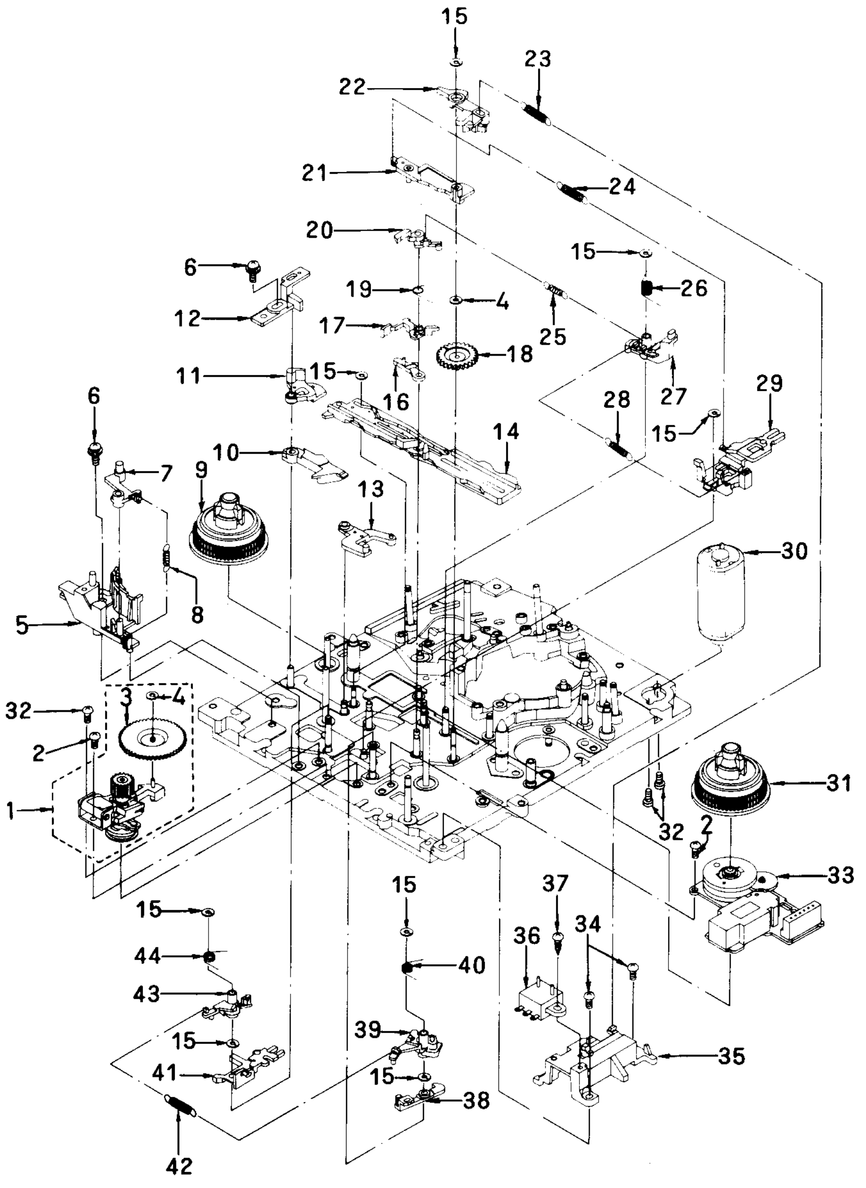
MECHANISM 2

Ref. No.	Part No.	Description
1	126-2-662T-00700	ROLLER
2	126-2-351T-01300	STOPPER, RING, LEFT
3	411 039 0105	SCP PAN 2X3
4	126-0-741T-01221	LEVER ASSY, CASSETTE BRAKE
5	412 015 5206	SPECIAL WASHER
6	126-2-851T-01600	SPRING, LOCK SLIDER
7	126-2-851T-01500	SPRING, LOADING SLIDER
9	126-0-741T-02100	ARM, TENSION REGULATOR LOAD
10	412 015 5305	SPECIAL WASHER
11	126-2-741T-01300	SLIDER, LOCK, SMALL
12	126-2-741T-03500	ARM, SOFT BRAKE RELEASE
13	126-2-351T-02200	BRACKET MTG
14	126-2-751T-05800	RETAINER, LOCK SLIDER
15	411 000 9700	RING E 2.5
16	126-0-683T-02500	RING ASSY
17	126-2-851T-01800	SPRING
18	126-0-741T-01600	LEVER ASSY, ARM
19	412 012 6701	SPECIAL WASHER
20	412 021 9502	SPECIAL WASHER
21	126-0-822T-00421	BRACKET TAPE GUID ASSY
22	126-2-351T-01200	STOPPER, RING, RIGHT
23	411 039 1300	SCR PAN 2X5
24	126-0-822T-00500	GUIDE ASSY, SLANT
25	411 039 4103	SCR PAN 2X8
26	411 015 8309	RING E 1.5
27	126-2-457T-00800	SPECIAL WASHER
28	126-2-581T-01700	GEAR, SLANT GUIDE
29	126-2-851T-01700	SPRING, TORSION
30	126-0-741T-01400	DRIVE CHANGER
31	411 039 0105	SCR PAN 2X3
32	4-231F-30100	SWITCH, ROTATORY
33	126-2-581T-01200	GEAR, NO.8
34	126-0-581T-01400	GEAR ASSY, NO.10
35	126-2-581T-01300	GEAR, NO.9
36	4-264F-00500	MAGNETIC COIL
37	126-0-741T-02400	LEVER, PINCH PRESS
39	126-0-741T-01000	SLIDER, LOADING



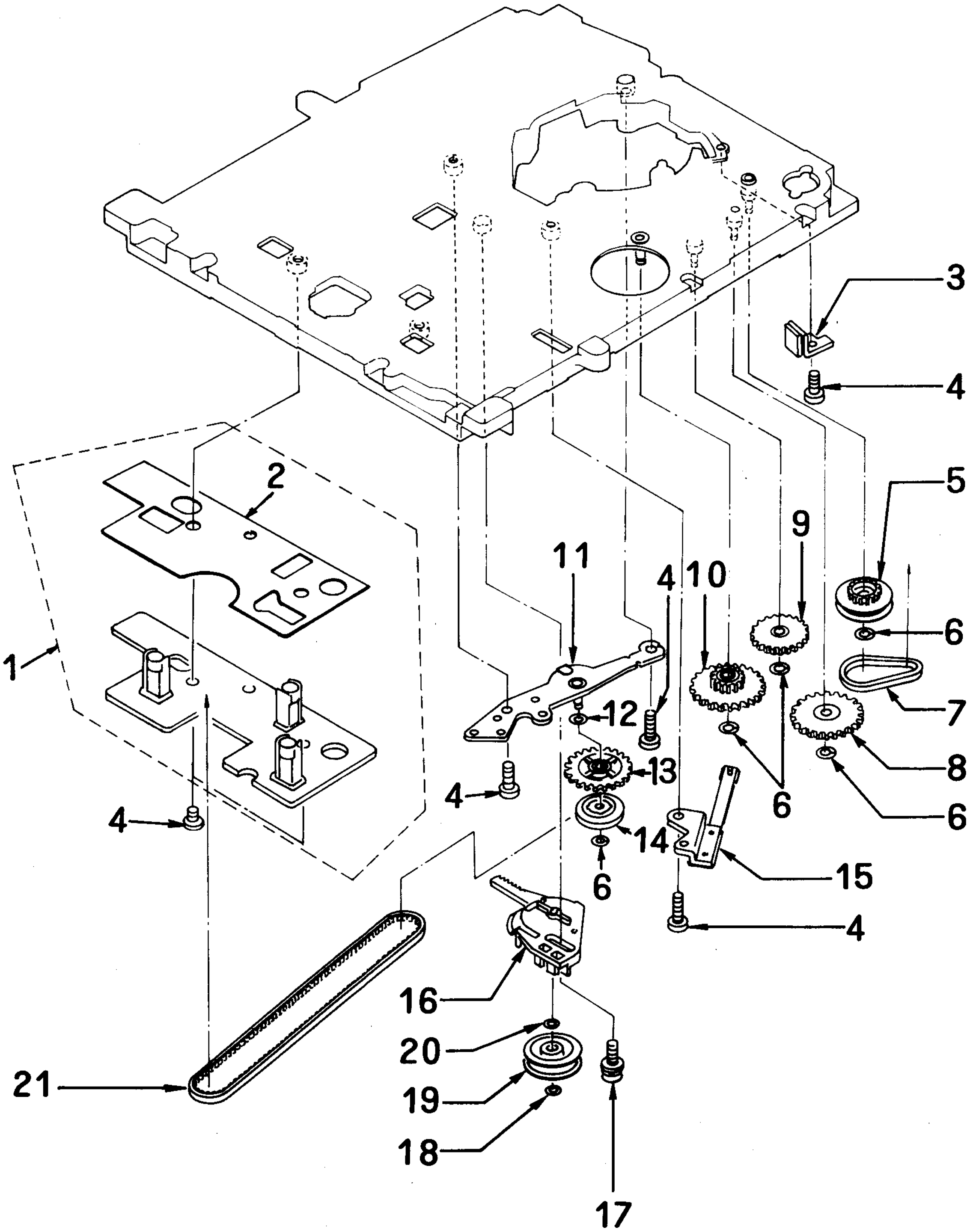
MECHANISM 3

Ref. No.	Part No.	Description
1	126-0-553T-00100	IDLER ASSEMBLY
2	411 033 3003	SCR FLT 2X4
3	126-0-581T-02100	GEAR ASSEMBLY, B
4	412 015 5305	SPECIAL WASHER
5	126-2-351T-02300	BRAKET, BAND GUIDE
6	412 021 7201	SPECIAL SCREW
7	126-2-741T-02500	BRAKE, S SOFT
8	126-2-851T-04000	SPRING, S SOFT BRAKE
9	126-0-531T-00300	S REEL TABLE ASSY
10	126-2-741T-03100	ARM, MODE
11	126-2-741T-03200	DISC, EJECT
12	126-2-465T-00300	STOPPER, BACK TENSION
13	126-0-741T-02700	ARM, CHANGE
14	126-2-673T-00100	SLIDE, MODE
15	412 015 5206	SPECIAL WASHER
16	126-2-741T-02800	ARM, SET UP
17	126-2-741T-02900	LEVER, RVS ARM
18	126-2-581T-02700	GEAR, MODE OUT PUT
19	126-2-851T-02800	SPRING, RVS ARM
20	126-0-741T-03400	S SOFT BRAKE ASSY
21	126-0-741T-03600	ARM, BRAKE RELEASE
22	126-0-715T-00400	T SOFT BRAKE ASSY
23	126-2-851T-03200	SPRING, T SOFT BRAKE
24	126-2-851T-02300	SPRING, BRAKE RELEASE ARM
25	126-2-851T-02200	SPRING, T SOFT BRAKE
26	126-2-851T-03000	SPRING, RING LOCK
27	126-2-741T-03000	ARM, RING LOCK
28	126-2-851T-03300	SPRING, BRAKE RELEASE
29	126-2-731T-00400	SLIDE, MAIN BRAKE
30	4-527F-10500	LOADING MOTOR
31	126-0-531T-00200	T REEL TABLE ASSY
32	411 039 0105	SCP PAN 2X3
33	4-231F-30000	SWITCH, ROTARY
34	411 039 1300	SCR PAN 2X5
35	126-2-378T-00100	BRACKET, ROTARY
36	4-231F-90900	SWITCH, RECOG
37	411 021 0809	SCR S-TPG BIN 2X6
38	126-2-741T-02600	LEVER, BRAKE LOCK
39	126-0-715T-00500	LEVER, T MAIN BRAKE
40	126-2-851T-02900	SPRING, T MAIN BRAKE
41	126-2-731T-00300	ARM, SELECTION
42	126-2-851T-03100	SPRING, MAIN BRAKE
43	126-0-741T-03300	LEVER, S MAIN BRAKE
44	126-2-851T-02700	SPRING, S MAIN BRAKE



MECHANISM 4

Ref. No.	Part No.	Description
1	126-0-230F-07350	SV3 ASSY
2	126-2-327T-02100	INSULATOR
3	4-221F-00800	DEW SENSOR
4	411 105 0305	SCR PAN 2X2.5
5	126-0-661T-00100	GEAR ASSY, NO.1
6	412 015 5206	SPECIAL WASHER
7	126-2-564T-00100	BELT, MOTOR
8	126-2-581T-00900	GEAR, NO.2
9	126-2-581T-01000	GEAR, NO.3
10	126-2-581T-01100	GEAR, NO.4
11	126-0-351T-01500	BRAKET ASSY, PULLY
12	412 012 6602	SPECIAL WASHER
13	126-0-581T-02800	GEAR ASSY
14	126-2-661T-00400	PULLY
15	126-0-764T-00121	BRUSH ASSY
16	126-0-351T-01600	IDLER ASSY
17	412 021 7201	SPECIAL SCREW
18	412 015 5305	SPECIAL WASHER
19	126-0-661T-00300	PULLEY ASSY
20	412 012 6701	SPECIAL WASHER
21	126-2-560T-00100	BELT, TIMING



ELECTRICAL PARTS

NOTE:

* Materials of Capacitors are abbreviated as follows;

ALUMINUM	Aluminum Electrolytic Capacitor
BC CON	Barrier Layer Ceramic Capacitor
CERAMIC	Ceramic Capacitor
EDL	Electric Double Layer Capacitor
ELECT	Electrolytic Capacitor
MYLAR	Mylar Film Capacitor
NON POLARIZED	Non Polarized Electrolytic Capacitor
POLYPRO	Polypropylene Capacitor

* Tolerance of Capacitor, Resistors and Other parts are noted with follow symboles;

A	+ 75 − 10%	M	±20%
F	±1%	N	±30%
G	±2%	P	+ 100 − 0%
J	±5%	Z	+ 80 − 20%
K	±10%		

VD-1 BOARD

Location	Part No.	Description
	⚠ 4-190F-00500	DC/DC CONVERTER
	126-2-322T-03400	SHIELD PLATE
		(CAPACITORS)
C1001	403 041 3908	ELECT 47UF M 10V
C1002	403 114 4504	ELECT 4.7UF M 25V
C1003	403 114 4504	ELECT 4.7UF M 25V
C1004	403 010 8507	CERAMIC 12PF J 50V
C1005	403 068 0409	CERAMIC 0.1UF Z 25V
C1006	403 067 9304	CERAMIC 0.01UF K 25V
C1007	403 067 9304	CERAMIC 0.01UF K 25V
C1008	403 068 5107	CERAMIC 0.047UF Z 25V
C1009	403 067 9304	CERAMIC 0.01UF K 25V
C1010	403 068 5107	CERAMIC 0.047UF Z 25V
C1011	403 018 0503	CERAMIC 22PF J 50V
C1012	403 030 3902	CERAMIC 62PF J 50V
C1013	403 018 0503	CERAMIC 22PF J 50V
C1014	403 114 4603	ELECT 2.2UF M 50V
C1016	403 114 4603	ELECT 2.2UF M 50V
C1017	403 067 9304	CERAMIC 0.01UF K 25V
C1018	403 014 9203	CERAMIC 180PF J 50V
C1019	403 068 0409	CERAMIC 0.1UF Z 25V
C1020	403 114 4504	ELECT 4.7UF M 25V
C1021	403 114 4504	ELECT 4.7UF M 25V
C1022	403 023 4503	CERAMIC 330PF J 50V
C1023	403 027 5407	CERAMIC 5PF D 50V
C1024	403 018 0503	CERAMIC 22PF J 50V
C1025	403 018 0503	CERAMIC 22PF J 50V
C1026	403 105 9402	CERAMIC 10PF J 50V
C1027	403 013 3004	CERAMIC 150PF J 50V
C1028	403 026 2803	CERAMIC 47PF J 50V
C1029	403 024 2102	CERAMIC 39PF J 50V
C1030	403 011 4904	CERAMIC 120PF J 50V
C1032	403 068 5107	CERAMIC 0.047UF Z 25V
C1033	403 027 5407	CERAMIC 5PF D 50V
C1034	403 068 5107	CERAMIC 0.047UF Z 25V
C1035	403 114 4504	ELECT 4.7UF M 25V
C1036	403 038 6707	ELECT 220UF M 6.3V
C1037	403 114 4603	ELECT 2.2UF M 50V
C1038	403 041 3908	ELECT 47UF M 10V
C1039	403 010 1102	CERAMIC 1000PF J 50V
C1040	403 038 2105	ELECT 100UF M 6.3V
C1042	403 068 5107	CERAMIC 0.047UF Z 25V
C1043	403 028 4102	CERAMIC 56PF J 50V
C1045	403 105 9105	ELECT 10UF M 16V
C1046	403 024 2102	CERAMIC 39PF J 50V
C1047	403 031 2201	CERAMIC 680PF J 50V
C1048	403 067 9304	CERAMIC 0.01UF K 25V
C1049	403 105 9105	ELECT 10UF M 16V
C1050	403 009 5708	CERAMIC 100PF J 50V
C1051	403 026 2803	CERAMIC 47PF J 50V
C1052	403 073 0005	CERAMIC 3300PF K 50V
C1053	403 068 5107	CERAMIC 0.047UF Z 25V
C1054	403 068 5107	CERAMIC 0.047UF Z 25V
C1055	403 105 9303	ELECT 1UF M 50V
C1056	403 024 2102	CERAMIC 39PF J 50V
C1101	403 010 1102	CERAMIC 1000PF J 50V
C1102	403 068 5107	CERAMIC 0.047UF Z 25V
C1103	403 023 4503	CERAMIC 330PF J 50V
C1104	403 010 1102	CERAMIC 1000PF J 50V
C1105	403 068 5107	CERAMIC 0.047UF Z 25V
C1106	403 023 4503	CERAMIC 330PF J 50V
C1107	403 067 9304	CERAMIC 0.01UF K 25V
C1108	403 023 4503	CERAMIC 330PF J 50V
C1109	403 023 4503	CERAMIC 330PF J 50V
C1110	403 105 9105	ELECT 10UF M 16V
C1111	403 022 8205	CERAMIC 33PF J 50V
C1112	403 020 0409	CERAMIC 27PF J 50V
C1113	403 020 0409	CERAMIC 27PF J 50V
C1114	403 030 6903	CERAMIC 68PF J 50V
C1115	403 105 9105	ELECT 10UF M 16V
C1116	403 068 5107	CERAMIC 0.047UF Z 25V
C1120	403 067 9304	CERAMIC 0.01UF K 25V
C1121	403 067 9304	CERAMIC 0.01UF K 25V
C1122	403 067 9304	CERAMIC 0.01UF K 25V
C1123	403 010 1102	CERAMIC 1000PF J 50V
C1124	403 114 4702	ELECT 3.3UF M 50V
C1125	403 010 1102	CERAMIC 1000PF J 50V
C1126	403 075 0706	CERAMIC 6800PF K 50V
C1127	403 114 4603	ELECT 2.2UF M 50V
C1128	403 070 8806	CERAMIC 1500PF K 50V
C1129	403 010 1102	CERAMIC 1000PF J 50V
C1130	403 105 9105	ELECT 10UF M 16V
C1131	403 068 5107	CERAMIC 0.047UF Z 25V
C1132	403 010 5001	CERAMIC 110PF J 50V
C1133	403 068 5107	CERAMIC 0.047UF Z 25V
C1134	403 067 9304	CERAMIC 0.01UF K 25V
C1135	403 067 9304	CERAMIC 0.01UF K 25V
C1136	403 023 4503	CERAMIC 330PF J 50V
C1137	403 027 5407	CERAMIC 5PF D 50V
C1138	403 010 1102	CERAMIC 1000PF J 50V
C1139	403 012 6808	CERAMIC 15PF J 50V
C1201	403 067 9304	CERAMIC 0.01UF K 25V
C1202	403 067 9304	CERAMIC 0.01UF K 25V
C1203	403 067 9304	CERAMIC 0.01UF K 25V
C1204	403 067 9304	CERAMIC 0.01UF K 25V
C1205	403 067 9304	CERAMIC 0.01UF K 25V
C1207	403 033 4500	CERAMIC 82PF J 50V
C1208	403 068 5107	CERAMIC 0.047UF Z 25V
C1209	403 068 5107	CERAMIC 0.047UF Z 25V
C1210	403 020 5503	CERAMIC 270PF J 50V
C1211	403 067 9304	CERAMIC 0.01UF K 25V
C1212	403 068 5107	CERAMIC 0.047UF Z 25V
C1213	403 067 9304	CERAMIC 0.01UF K 25V
C1214	403 067 9304	CERAMIC 0.01UF K 25V
C1215	403 105 9402	CERAMIC 10PF J 50V
C1216	403 067 9304	CERAMIC 0.01UF K 25V
C1217	403 022 8205	CERAMIC 33PF J 50V
C1218	403 023 4503	CERAMIC 330PF J 50V

Location	Part No.	Description
C1219	403 068 0409	CERAMIC 0.1UF Z 25V
C1301	403 026 7600	CERAMIC 470PF J 50V
C1302	403 010 1102	CERAMIC 1000PF J 50V
C1303	403 028 4102	CERAMIC 56PF J 50V
C1304	403 068 2007	CERAMIC 0.022UF K 25V
C1305	403 070 8806	CERAMIC 1500PF K 50V
C1306	403 018 0503	CERAMIC 22PF J 50V
C1308	403 068 5107	CERAMIC 0.047UF Z 25V
C1311	403 067 9304	CERAMIC 0.01UF K 25V
C1401	403 067 9304	CERAMIC 0.01UF K 25V
C1402	403 067 9304	CERAMIC 0.01UF K 25V
C1403	403 028 4102	CERAMIC 56PF J 50V
C1404	403 011 4904	CERAMIC 120PF J 50V
C1405	403 067 9304	CERAMIC 0.01UF K 25V
C1406	403 068 3608	CERAMIC 0.033UF Z 25V
C2001	403 038 6707	ELECT 220UF M 6.3V
C2002	403 090 1306	TA-SOLID 47UF M 6.3V
C2003	403 067 9304	CERAMIC 0.01UF K 25V
C2004	403 105 9105	ELECT 10UF M 16V
C2005	403 026 7600	CERAMIC 470PF J 50V
C2006	403 010 1102	CERAMIC 1000PF J 50V
C2007	403 114 4207	ELECT 47UF M 4V
C2008	403 105 9105	ELECT 10UF M 16V
C2009	403 038 2105	ELECT 100UF M 6.3V
C2010	403 121 9608	TA-SOLID 15UF M 6.3V
C2011	403 038 2105	ELECT 100UF M 6.3V
C2012	403 038 2105	ELECT 100UF M 6.3V
C2015	403 024 7206	CERAMIC 390PF J 50V
		(DIODES)
D1001	407 004 0706	DIODE DCB015
D1002	407 012 7605	DIODE 1SS226
D1004	407 057 8902	ZENER DIODE RD8.2M B2
D1005	407 057 8902	ZENER DIODE RD8.2M B2
D1006	407 057 8902	ZENER DIODE RD8.2M B2
D1007	407 057 8902	ZENER DIODE RD8.2M B2
D1008	407 057 8902	ZENER DIODE RD8.2M B2
D1009	407 057 8902	ZENER DIODE RD8.2M B2
D1014	407 004 0201	DIODE DCA015
D1015	407 012 7605	DIODE 1SS226
D1101	407 012 7605	DIODE 1SS226
D1102	407 004 0706	DIODE DCB015
D1103	407 012 7605	DIODE 1SS226
D1104	407 012 7605	DIODE 1SS226
D1201	407 012 7605	DIODE 1SS226
D1301	407 057 8902	ZENER DIODE RD8.2M B2
D1303	407 004 0706	DIODE DCB015
D1304	407 054 5508	ZENER DIODE RD13M B1
D2001	407 057 8902	ZENER DIODE RD8.2M B2
D2002	407 057 8902	ZENER DIODE RD8.2M B2
D2003	407 057 8902	ZENER DIODE RD8.2M B2
D2004	407 057 8902	ZENER DIODE RD8.2M B2
D2005	407 012 7605	DIODE 1SS226
D5001	407 054 5508	ZENER DIODE RD13M B1
		(INTEGRATED CIRCUITS)
IC1001	410 028 7903	IC 4206F02600
IC1002	409 004 6009	IC CXL5003M
IC1101	409 120 8505	IC JU0311
IC1102	409 111 6404	IC CX22021
IC1103	409 113 9106	IC CX23054-Z
IC1104	409 120 2602	IC CX20117
IC1301	409 111 6503	IC CX7991
IC2001	409 111 2505	IC 4206F01900
		(COILS)
L1001	4-253F-80712	HF CHOKE 100UH
L1002	4-253F-81724	HF CHOKE
L1003	4-253F-81531	HF CHOKE 47UH
L1004	4-253F-81531	HF CHOKE 47UH
L1006	4-253F-81538	HF CHOKE 180UH
L1007	4-253F-81539	HF CHOKE 220UH
L1008	4-253F-81539	HF CHOKE 220UH
L1009	4-253F-81533	HF CHOKE 68UH
L1010	4-253F-81532	HF CHOKE 56UH
L1011	4-253F-81531	HF CHOKE 47UH
L1012	4-253F-81724	HF CHOKE
L1013	4-253F-80704	HF CHOKE 22UH
L1015	4-253F-80714	HF CHOKE 150UH
L1016	4-253F-81529	HF CHOKE 33UH
L1017	4-253F-81532	HF CHOKE 56UH
L1018	4-253F-81529	HF CHOKE 33UH
L1019	4-253F-81511	HF CHOKE
L1101	4-253F-81538	HF CHOKE 180UH
L1102	4-253F-80708	HF CHOKE 47UH
L1103	4-253F-81716	HF CHOKE
L1201	4-253F-81519	HF CHOKE 4.7UH
L1202	4-253F-81538	HF CHOKE 180UH
L1203	4-253F-81718	HF CHOKE
L1204	4-253F-80712	HF CHOKE 100UH
L1205	4-253F-80712	HF CHOKE 100UH
L1206	4-253F-81712	HF CHOKE
L1207	4-253F-80712	HF CHOKE 100UH
L1401	4-253F-81522	HF CHOKE 8.2UH
L1402	4-253F-80716	HF CHOKE 220UH
		(TRANSISTORS)
Q1001	405 002 6508	TR 2SA1179-M5
Q1002	405 002 6508	TR 2SA1179-M5
Q1003	405 002 6508	TR 2SA1179-M5
Q1004	405 015 9909	TR 2SC2814-F5
Q1005	405 015 8407	TR 2SC2812-L5
Q1006	405 002 6508	TR 2SA1179-M5
Q1007	405 002 4108	TR 2SA1122-D
Q1008	405 002 6508	TR 2SA1179-M5
Q1009	405 002 6508	TR 2SA1179-M5
Q1010	405 003 7306	TR 2SA1343
Q1013	405 018 2204	TR 2SC3397
Q1015	405 015 8902	TR 2SC2812-L7
Q1016	405 018 2204	TR 2SC3397
Q1017	405 018 2006	TR 2SC3396
Q1018	405 015 8407	TR 2SC2812-L5
Q1019	405 002 4108	TR 2SA1122-D
Q1020	405 002 4108	TR 2SA1122-D
Q1021	405 015 8407	TR 2SC2812-L5
Q1022	405 002 4108	TR 2SA1122-D
Q1023	405 018 2402	TR 2SC3398
Q1101	405 015 8407	TR 2SC2812-L5
Q1201	405 015 8407	TR 2SC2812-L5
Q1202	405 015 8407	TR 2SC2812-L5
Q1203	405 018 1900	TR 2SC3395
Q1204	405 015 8407	TR 2SC2812-L5
Q1205	405 015 8407	TR 2SC2812-L5
Q1206	405 015 8407	TR 2SC2812-L5
Q1207	405 015 8407	TR 2SC2812-L5
Q1208	405 015 8407	TR 2SC2812-L5
Q1301	405 015 8407	TR 2SC2812-L5
Q1302	405 002 6508	TR 2SA1179-M5
Q1303	405 018 2204	TR 2SC3397
Q1304	405 008 7509	TR 2SB815-B6
Q1305	405 003 7306	TR 2SA1343
Q1401	405 002 6706	TR 2SA1179-M6
Q1402	405 002 6706	TR 2SA1179-M6
Q2001	405 029 3207	TR DTC114TK-T96
Q2002	405 015 8902	TR 2SC2812-L7
Q2003	405 015 8704	TR 2SC2812-L6
Q2004	405 002 6706	TR 2SA1179-M6
Q5001	405 060 6908	TR 2SA1202-O
Q5002	405 002 6508	TR 2SA1179-M5
Q5003	405 018 1900	TR 2SC3395
		(RESISTORS)
R1001	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1002	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R1003	401 037 5400	MT-GLAZE 1K OHM J 1/10W

Location	Part No.	Description
R1004	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R1006	401 037 5806	MT-GLAZE 1M OHM J 1/10W
R1007	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
R1008	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R1009	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R1010	401 037 6704	MT-GLAZE 1.2K OHM J 1/10W
R1011	401 037 8005	MT-GLAZE 15K OHM J 1/10W
R1012	401 037 9309	MT-GLAZE 18K OHM J 1/10W
R1013	401 039 0304	MT-GLAZE 820 OHM J 1/10W
R1014	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R1015	401 038 3504	MT-GLAZE 330 OHM J 1/10W
R1016	401 038 4006	MT-GLAZE 360 OHM J 1/10W
R1017	401 038 9308	MT-GLAZE 68K OHM J 1/10W
R1018	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R1019	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R1020	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R1021	401 039 0304	MT-GLAZE 820 OHM J 1/10W
R1022	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R1023	401 038 2101	MT-GLAZE 2.7K OHM J 1/10W
R1024	401 037 9200	MT-GLAZE 1.8K OHM J 1/10W
R1025	401 038 7601	MT-GLAZE 560 OHM J 1/10W
R1028	401 038 4907	MT-GLAZE 39 OHM J 1/10W
R1029	401 038 4907	MT-GLAZE 39 OHM J 1/10W
R1030	401 037 6704	MT-GLAZE 1.2K OHM J 1/10W
R1031	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R1032	401 038 5102	MT-GLAZE 3.9K OHM J 1/10W
R1033	401 038 9209	MT-GLAZE 6.8K OHM J 1/10W
R1034	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1035	401 038 5003	MT-GLAZE 390 OHM J 1/10W
R1036	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R1037	401 037 7305	MT-GLAZE 1.3K OHM J 1/10W
R1038	401 038 1302	MT-GLAZE 2.4K OHM J 1/10W
R1039	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R1040	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R1041	401 038 5003	MT-GLAZE 390 OHM J 1/10W
R1045	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R1047	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R1048	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R1049	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1050	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1051	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R1052	401 038 9209	MT-GLAZE 6.8K OHM J 1/10W
R1053	401 038 2101	MT-GLAZE 2.7K OHM J 1/10W
R1054	401 038 9001	MT-GLAZE 680 OHM J 1/10W
R1056	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R1057	401 039 0304	MT-GLAZE 820 OHM J 1/10W
R1058	401 038 8905	MT-GLAZE 68 OHM J 1/10W
R1062	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1063	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1064	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R1065	401 038 5003	MT-GLAZE 390 OHM J 1/10W
R1066	401 039 0304	MT-GLAZE 820 OHM J 1/10W
R1067	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1068	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1073	401 037 8203	MT-GLAZE 1.5M OHM J 1/10W
R1074	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1075	401 038 2200	MT-GLAZE 27K OHM J 1/10W
R1077	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R1078	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R1080	401 038 3801	MT-GLAZE 330K OHM J 1/10W
R1081	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R1082	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1083	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R1084	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1085	401 038 2200	MT-GLAZE 27K OHM J 1/10W
R1086	401 038 8509	MT-GLAZE 620 OHM J 1/10W
R1087	401 038 9001	MT-GLAZE 680 OHM J 1/10W
R1088	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R1089	401 038 9001	MT-GLAZE 680 OHM J 1/10W
R1090	401 038 9001	MT-GLAZE 680 OHM J 1/10W
R1091	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
R1092	401 037 9200	MT-GLAZE 1.8K OHM J 1/10W
R1093	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R1094	401 038 5003	MT-GLAZE 390 OHM J 1/10W
R1095	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R1096	401 037 6506	MT-GLAZE 12 OHM J 1/10W
R1097	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R1101	401 037 8005	MT-GLAZE 15K OHM J 1/10W
R1102	401 038 3504	MT-GLAZE 330 OHM J 1/10W
R1103	401 037 8005	MT-GLAZE 15K OHM J 1/10W
R1104	401 037 6506	MT-GLAZE 12 OHM J 1/10W
R1105	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R1106	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1107	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R1108	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1109	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R1110	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R1112	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R1113	401 038 2101	MT-GLAZE 2.7K OHM J 1/10W
R1114	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R1116	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1117	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1118	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R1119	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R1120	401 038 5003	MT-GLAZE 390 OHM J 1/10W
R1121	401 038 7908	MT-GLAZE 560K OHM J 1/10W
R1122	401 037 5806	MT-GLAZE 1M OHM J 1/10W
R1123	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R1126	401 038 2101	MT-GLAZE 2.7K OHM J 1/10W
R1128	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R1129	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R1130	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R1131	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R1132	401 038 0602	MT-GLAZE 220 OHM J 1/10W
R1133	401 038 0602	MT-GLAZE 220 OHM J 1/10W
R1134	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
R1135	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
R1136	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
R1137	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
R1138	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
R1139	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R1141	401 038 5102	MT-GLAZE 3.9K OHM J 1/10W
R1142	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R1143	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R1144	401 039 0403	MT-GLAZE 8.2K OHM J 1/10W
R1145	401 037 6902	MT-GLAZE 120K OHM J 1/10W
R1146	401 039 0502	MT-GLAZE 82K OHM J 1/10W
R1147	401 038 2101	MT-GLAZE 2.7K OHM J 1/10W
R1148	401 037 8005	MT-GLAZE 15K OHM J 1/10W
R1149	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R1150	401 038 9308	MT-GLAZE 68K OHM J 1/10W
R1151	401 038 7601	MT-GLAZE 560 OHM J 1/10W
R1152	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1153	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1154	401 038 4006	MT-GLAZE 360 OHM J 1/10W
R1157	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R1160	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1161	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1201	401 037 6704	MT-GLAZE 1.2K OHM J 1/10W
R1202	401 038 2101	MT-GLAZE 2.7K OHM J 1/10W
R1203	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R1204	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
R1205	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R1206	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1207	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R1208	401 038 9209	MT-GLAZE 6.8K OHM J 1/10W
R1209	401 038 2101	MT-GLAZE 2.7K OHM J 1/10W
R1210	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R1211	401 037 8005	MT-GLAZE 15K OHM J 1/10W
R1212	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
R1213	401 038 7601	MT-GLAZE 560 OHM J 1/10W
R1214	401 037 9200	MT-GLAZE 1.8K OHM J 1/10W
R1215	401 038 7601	MT-GLAZE 560 OHM J 1/10W
R1216	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
R1217	401 037 5202	MT-GLAZE 100 OHM J 1/10W

Location	Part No.	Description
R1218	401 037 6704	MT-GLAZE 1.2K OHM J 1/10W
R1219	401 039 0304	MT-GLAZE 820 OHM J 1/10W
R1220	401 037 6803	MT-GLAZE 12K OHM J 1/10W
R1221	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1222	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R1223	401 038 8905	MT-GLAZE 68 OHM J 1/10W
R1224	401 039 0403	MT-GLAZE 8.2K OHM J 1/10W
R1225	401 038 9001	MT-GLAZE 680 OHM J 1/10W
R1226	401 038 7601	MT-GLAZE 560 OHM J 1/10W
R1227	401 038 7601	MT-GLAZE 560 OHM J 1/10W
R1228	401 037 9309	MT-GLAZE 18K OHM J 1/10W
R1229	401 037 9309	MT-GLAZE 18K OHM J 1/10W
R1230	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R1231	401 038 5003	MT-GLAZE 390 OHM J 1/10W
R1301	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R1302	401 039 0403	MT-GLAZE 8.2K OHM J 1/10W
R1303	401 038 9209	MT-GLAZE 6.8K OHM J 1/10W
R1304	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R1305	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R1306	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R1307	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R1308	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R1309	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R1310	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R1311	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R1312	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R1313	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R1314	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1315	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R1316	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R1317	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1401	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R1402	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1403	401 038 3504	MT-GLAZE 330 OHM J 1/10W
R1404	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R1405	401 038 5607	MT-GLAZE 4.7 OHM K 1/10W
R2001	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R2002	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R2004	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R2005	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R2006	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R2007	401 038 0107	MT-GLAZE 2K OHM J 1/10W
R2008	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R2009	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R2010	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R2011	401 039 0403	MT-GLAZE 8.2K OHM J 1/10W
R2012	401 038 5102	MT-GLAZE 3.9K OHM J 1/10W
R2013	401 038 0503	MT-GLAZE 22 OHM J 1/10W
R2014	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R2015	401 039 0304	MT-GLAZE 820 OHM J 1/10W
R2017	401 099 9606	MT-GLAZE 8.2 OHM J 1/10W
R5001	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R5002	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R5003	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
		(SEMI VARIABLE RESISTORS)
SVR1001	4-222F-60804	SEMI VR 1K OHM
or	4-222F-60906	SEMI VR 1K OHM
SVR1002	4-222F-60808	SEMI VR 10K OHM
or	4-222F-60912	SEMI VR 10K OHM
SVR1003	4-222F-60804	SEMI VR 1K OHM
or	4-222F-60906	SEMI VR 1K OHM
SVR1004	4-222F-60807	SEMI VR 5K OHM
or	4-222F-60910	SEMI VR 4.7K OHM
SVR1005	4-222F-60808	SEMI VR 10K OHM
or	4-222F-60912	SEMI VR 10K OHM
SVR1006	4-222F-60708	SEMI VR 10K OHM
SVR1101	4-222F-60813	SEMI VR 200K OHM
or	4-222F-60920	SEMI VR 220K OHM
SVR1102	4-222F-60811	SEMI VR 50K OHM
or	4-222F-60916	SEMI VR 47K OHM
SVR1201	4-222F-60807	SEMI VR 5K OHM
SVR1201	4-222F-60910	SEMI VR 4.7K OHM
SVR1202	4-222F-60809	SEMI VR 20K OHM
or	4-222F-60914	SEMI VR 22K OHM
		(TRANSFORMERS)
T1001	4-953F-03400	FILTER
T1003	4-953F-03300	FILTER
T1101	4-953F-04100	FILTER
T1102	4-953F-03500	FILTER
T1103	4-953F-04000	FILTER
T1104	4-953F-03700	FILTER
T1105	4-953F-03800	FILTER
T1201	4-953F-04200	FILTER
T2001	4-953F-01900	FILTER
		(MISCELLANEOUS)
CN8501	4-235F-06800	SOCKET
CT1101	4-224F-11400	TRIMMER
DL1001	4-284F-00600	DELAY LINE
F5001	⚠ 4-234F-00700	FUSE
F5002	⚠ 4-201F-00200	CIRCUIT PROTECTOR
X1001	4-953F-01500	FILTER
X1101	4-225F-01000	CRYSTAL
X1103	4-225F-00200	CRYSTAL
or	4-225F-00900	CRYSTAL

AD-1 BOARD

Location	Part No.	Description
	126-2-322T-03800	SHIELD PLATE
	126-2-352T-03700	SPACER
		(CAPACITORS)
C2102	403 105 9303	ELECT 1UF M 50V
C2103	403 075 2205	CERAMIC 0.068UF K 50V
C2104	403 075 2205	CERAMIC 0.068UF K 50V
C2105	403 028 4102	CERAMIC 56PF J 50V
C2106	403 114 4702	ELECT 3.3UF M 50V
C2107	403 070 8806	CERAMIC 1500PF K 50V
C2108	403 114 4207	ELECT 47UF M 4V
C2109	403 038 2105	ELECT 100UF M 6.3V
		(TRANSISTORS)
Q2101	405 015 4409	TR 2SC2712-LL
Q2102	405 015 4409	TR 2SC2712-LL
		(RESISTORS)
R2101	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R2102	401 038 7809	MT-GLAZE 56K OHM J 1/10W
R2103	401 038 2200	MT-GLAZE 27K OHM J 1/10W
R2104	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R2105	401 037 5202	MT-GLAZE 100 OHM J 1/10W
R2106	401 037 6803	MT-GLAZE 12K OHM J 1/10W
R2107	401 038 3504	MT-GLAZE 330 OHM J 1/10W
R2108	401 038 2200	MT-GLAZE 27K OHM J 1/10W
R2109	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R2110	401 037 7404	MT-GLAZE 13K OHM J 1/10W

VP-1 BOARD

Location	Part No.	Description
	126-2-322T-03200	SHIELD PLATE, SIDE A
	126-2-322T-03300	SHIELD PLATE, SIDE B
	126-2-327T-02300	INSULATOR
		(CAPACITORS)
C1501	403 067 9304	CERAMIC 0.01UF K 25V
C1502	403 067 9304	CERAMIC 0.01UF K 25V
C1503	403 067 9304	CERAMIC 0.01UF K 25V
C1504	403 140 6602	TA-SOLID 1UF M 16V
or	403 091 0407	TA-SOLID 1UF M 16V
C1506	403 067 9304	CERAMIC 0.01UF K 25V
C1507	403 140 6404	TA-SOLID 4.7UF M 10V
or	403 090 7308	TA-SOLID 4.7UF M 10V
C1508	403 067 9304	CERAMIC 0.01UF K 25V
C1509	403 140 6404	TA-SOLID 4.7UF M 10V
or	403 090 7308	TA-SOLID 4.7UF M 10V
C1510	403 067 9304	CERAMIC 0.01UF K 25V
C1511	403 020 0409	CERAMIC 27PF J 50V
C1512	403 140 6602	TA-SOLID 1UF M 16V
or	403 091 0407	TA-SOLID 1UF M 16V
C1513	403 068 5107	CERAMIC 0.047UF Z 25V
C1514	403 067 9304	CERAMIC 0.01UF K 25V
C1515	403 038 2105	ELECT 100UF M 6.3V
C1516	403 068 0409	CERAMIC 0.1UF Z 25V
C1517	403 067 9304	CERAMIC 0.01UF K 25V
C1518	403 068 0409	CERAMIC 0.1UF Z 25V
C1519	403 067 9304	CERAMIC 0.01UF K 25V
C1520	403 068 0409	CERAMIC 0.1UF Z 25V
C1521	403 068 0409	CERAMIC 0.1UF Z 25V
C1522	403 068 0409	CERAMIC 0.1UF Z 25V
C1523	403 068 0409	CERAMIC 0.1UF Z 25V
C1524	403 067 9304	CERAMIC 0.01UF K 25V
C1525	403 068 0409	CERAMIC 0.1UF Z 25V
C1526	403 067 9304	CERAMIC 0.01UF K 25V
C1527	403 067 9304	CERAMIC 0.01UF K 25V
C1528	403 068 0409	CERAMIC 0.1UF Z 25V
C1529	403 038 2105	ELECT 100UF M 6.3V
C1530	403 067 9304	CERAMIC 0.01UF K 25V
C1531	403 020 0409	CERAMIC 27PF J 50V
C1532	403 140 6602	TA-SOLID 1UF M 16V
or	403 091 0407	TA-SOLID 1UF M 16V
C1533	403 067 9304	CERAMIC 0.01UF K 25V
C1534	403 068 5107	CERAMIC 0.047UF Z 25V
C1535	403 068 0409	CERAMIC 0.1UF Z 25V
C1536	403 068 0409	CERAMIC 0.1UF Z 25V
C1537	403 010 5001	CERAMIC 110PF J 50V
C1538	403 068 0409	CERAMIC 0.1UF Z 25V
C1539	403 068 0409	CERAMIC 0.1UF Z 25V
C1540	403 067 9304	CERAMIC 0.01UF K 25V
C1541	403 140 5902	TA-SOLID 3.3UF M 6.3V
or	403 114 5600	TA-SOLID 3.3UF M 6.3V
C1542	403 067 9304	CERAMIC 0.01UF K 25V
C1543	403 010 5001	CERAMIC 110PF J 50V
C1544	403 067 9304	CERAMIC 0.01UF K 25V
C1545	403 068 0409	CERAMIC 0.1UF Z 25V
C1546	403 068 0409	CERAMIC 0.1UF Z 25V
C1547	403 073 9107	CERAMIC 4700PF K 50V
		(INTEGRATED CIRCUITS)
IC1501	409 113 9205	IC CX20034-Z
IC1502	409 111 8101	IC M51460FP-71C
		(COILS)
L1501	4-253F-80517	HF CHOKE 22UH
L1502	4-253F-80513	HF CHOKE 10UH
L1503	4-253F-80517	HF CHOKE 22UH
L1504	4-253F-80517	HF CHOKE 22UH
L1505	4-253F-80517	HF CHOKE 22UH
L1506	4-253F-80517	HF CHOKE 22UH
L1507	4-253F-81520	HF CHOKE 5.6UH
L1508	4-253F-80517	HF CHOKE 22UH

Location	Part No.	Description
		(TRANSISTORS)
Q1501	405 018 2204	TR 2SC3397
Q1502	405 015 8407	TR 2SC2812-L5
Q1503	405 018 2204	TR 2SC3397
Q1504	405 015 8407	TR 2SC2812-L5
Q1505	405 015 8407	TR 2SC2812-L5
		(RESISTORS)
R1501	401 038 9803	MT-GLAZE 75K OHM J 1/10W
R1502	401 037 9200	MT-GLAZE 1.8K OHM J 1/10W
R1503	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R1504	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1505	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1506	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R1507	401 037 9200	MT-GLAZE 1.8K OHM J 1/10W
R1508	401 038 5300	MT-GLAZE 39K OHM J 1/10W
R1509	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1510	401 037 9200	MT-GLAZE 1.8K OHM J 1/10W
R1511	401 038 2200	MT-GLAZE 27K OHM J 1/10W
R1512	401 038 2200	MT-GLAZE 27K OHM J 1/10W
R1513	401 038 2200	MT-GLAZE 27K OHM J 1/10W
R1514	401 038 2200	MT-GLAZE 27K OHM J 1/10W
R1515	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1516	401 038 5300	MT-GLAZE 39K OHM J 1/10W
R1517	401 037 9200	MT-GLAZE 1.8K OHM J 1/10W
R1518	401 037 9200	MT-GLAZE 1.8K OHM J 1/10W
R1519	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R1520	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R1521	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1522	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1523	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1524	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1525	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1526	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R1527	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R1528	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R1529	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R1530	401 038 7601	MT-GLAZE 560 OHM J 1/10W
R1531	401 037 6704	MT-GLAZE 1.2K OHM J 1/10W
R1532	401 037 5608	MT-GLAZE 10K OHM J 1/10W
		(SEMI VARIABLE RESISTORS)
SVR1501	4-222F-60707	SEMI VR 5K OHM
SVR1502	4-222F-60708	SEMI VR 10K OHM
SVR1503	4-222F-60707	SEMI VR 5K OHM
SVR1504	4-222F-60708	SEMI VR 10K OHM
SVR1505	4-222F-60705	SEMI VR 2K OHM

SY-1 BOARD

Location	Part No.	Description
	126-2-352T-03800	SPACER
	126-2-352T-03900	SPACER
	126-2-741T-04200	LEVER, RESET/MEMORY
		(CAPACITORS)
C3001	403 038 2105	ELECT 100UF M 6.3V
C3003	403 068 3608	CERAMIC 0.033UF Z 25V
C3004	403 068 3608	CERAMIC 0.033UF Z 25V
C3005	403 105 9105	ELECT 10UF M 16V
C3006	403 100 9704	CERAMIC 0.1UF M 25V
C3007	403 114 4702	ELECT 3.3UF M 50V
C3008	403 071 6504	CERAMIC 220PF K 50V
C3009	403 071 6504	CERAMIC 220PF K 50V
C3010	403 105 9105	ELECT 10UF M 16V
C3011	403 068 5107	CERAMIC 0.047UF Z 25V
C3012	403 070 8806	CERAMIC 1500PF K 50V

Location	Part No.	Description
C3014	403 020 5503	CERAMIC 270PF J 50V
C3016	403 114 3903	CERAMIC 0.22UF Z 50V
C3017	403 114 3903	CERAMIC 0.22UF Z 50V
C3019	403 068 3608	CERAMIC 0.033UF Z 25V
C3020	403 070 8806	CERAMIC 1500PF K 50V
		(DIODES)
D3001	407 042 6906	LED TLR122
D3002	407 042 6906	LED TLR122
D3003	407 042 6906	LED TLR122
D3004	407 004 0706	DIODE DCB015
D3005	407 004 0706	DIODE DCB015
D3006	407 057 7301	ZENER DIODE RD7.5M B1
D3007	407 004 1000	DIODE DCC010
D3008	407 004 0706	DIODE DCB015
D3009	407 004 0706	DIODE DCB015
D3010	407 004 0706	DIODE DCB015
D3011	407 004 0706	DIODE DCB015
D3012	407 004 0706	DIODE DCB015
D3013	407 004 0706	DIODE DCB015
D3014	407 004 0706	DIODE DCB015
D3015	407 004 0706	DIODE DCB015
D3016	407 004 0706	DIODE DCB015
D3017	407 004 0706	DIODE DCB015
D3018	407 004 0706	DIODE DCB015
D3021	407 004 0706	DIODE DCB015
		(INTEGRATED CIRCUITS)
IC3001	410 032 3106	IC UPD7503G-F-J01-3B8
IC3002	409 083 8901	IC LA6339M
IC3003	409 020 7103	IC LA4011BM
IC3004	409 111 7401	IC LVC550C
		(TRANSISTORS)
Q3001	405 018 2402	TR 2SC3398
Q3002	405 002 6706	TR 2SA1179-M6
Q3003	405 018 1900	TR 2SC3395
Q3004	405 018 2402	TR 2SC3398
Q3005	405 018 2402	TR 2SC3398
Q3006	405 018 1900	TR 2SC3395
Q3007	405 015 8704	TR 2SC2812-L6
Q3008	405 060 6502	TR DTC144TK-T96
Q3009	405 018 1900	TR 2SC3395
Q3010	405 003 7108	TR 2SA1341
Q3011	405 003 7108	TR 2SA1341
		(RESISTORS)
R3001	401 037 5202	MT-GLAZE 100 OHM J 1/10W
R3002	401 038 5300	MT-GLAZE 39K OHM J 1/10W
R3003	401 037 5202	MT-GLAZE 100 OHM J 1/10W
R3004	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R3005	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R3006	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R3007	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R3008	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R3009	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R3010	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R3011	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R3012	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R3013	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R3014	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R3015	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R3016	401 038 0909	MT-GLAZE 220K OHM J 1/10W
R3017	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R3018	401 038 6604	MT-GLAZE 470K OHM J 1/10W
R3019	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R3020	401 037 9309	MT-GLAZE 18K OHM J 1/10W
R3021	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R3022	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R3023	401 038 3504	MT-GLAZE 330 OHM J 1/10W
R3024	401 038 9308	MT-GLAZE 68K OHM J 1/10W
R3025	401 038 3702	MT-GLAZE 33K OHM J 1/10W

Location	Part No.	Description
R3026	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R3027	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R3028	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R3029	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R3030	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R3031	401 037 5806	MT-GLAZE 1M OHM J 1/10W
R3032	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R3033	401 038 2309	MT-GLAZE 270K OHM J 1/10W
R3034	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R3035	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R3036	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R3037	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R3038	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R3039	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R3040	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R3041	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R3042	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R3043	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R3044	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R3045	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R3046	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R3047	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R3050	401 037 5202	MT-GLAZE 100 OHM J 1/10W
R3052	401 037 6605	MT-GLAZE 120 OHM J 1/10W
		(SEMI VARIABLE RESISTORS)
SVR3001	4-222F-60710	SEMI VR 30K OHM
		(SWITCHES)
S3001	4-231F-60700	PUSH SWITCH, PLAY
or	4-231F-60800	PUSH SWITCH, PLAY
S3002	4-231F-60700	PUSH SWITCH, STOP
or	4-231F-60800	PUSH SWITCH, STOP
S3003	4-231F-10200	SLIDE SWITCH, REC
S3004	4-231F-10200	SLIDE SWITCH, EJECT
S3005	4-231F-60700	PUSH SWITCH, REW
or	4-231F-60800	PUSH SWITCH, REW
S3006	4-231F-60700	PUSH SWITCH, FF
or	4-231F-60800	PUSH SWITCH, FF
S3007	4-231F-60700	PUSH SWITCH, PAUSE/STILL
or	4-231F-60800	PUSH SWITCH, PAUSE/STILL
S3008	4-231F-60700	PUSH SWITCH, MEMORY
or	4-231F-60800	PUSH SWITCH, MEMORY
S3009	4-231F-60700	PUSH SWITCH, RESET
or	4-231F-60800	PUSH SWITCH, RESET
S3010	4-231F-60700	PUSH SWITCH, SLOW
or	4-231F-60800	PUSH SWITCH, SLOW
S3011	4-231F-10200	SLIDE SWITCH, POWER
		(MISCELLANEOUS)
A3001	4-970F-00200	LCD
X3001	4-266F-00200	CERAMIC RESONATOR

SV-1 BOARD

Location	Part No.	Description
		(COMPOSITE)
B4001	4-958F-00300	RESISTOR PACK
B4002	4-958F-00300	RESISTOR PACK
		(CAPACITORS)
C4001	403 067 9304	CERAMIC 0.01UF K 25V
C4002	403 024 2102	CERAMIC 39PF J 50V
C4003	403 024 2102	CERAMIC 39PF J 50V
C4004	403 067 9304	CERAMIC 0.01UF K 25V
C4005	403 067 9304	CERAMIC 0.01UF K 25V
C4006	403 067 9304	CERAMIC 0.01UF K 25V

Location	Part No.	Description
C4007	403 058 9504	POLYESTER 0.018UF J 50V
C4008	403 067 9304	CERAMIC 0.01UF K 25V
C4009	403 068 3301	CERAMIC 0.033UF K 25V
C4010	403 067 9304	CERAMIC 0.01UF K 25V
C4051	403 039 2708	ELECT 47UF M 6.3V
C4052	403 114 4603	ELECT 2.2UF M 50V
C4054	403 114 4504	ELECT 4.7UF M 25V
C4055	403 105 9105	ELECT 10UF M 16V
C4056	403 114 4603	ELECT 2.2UF M 50V
C4057	403 105 9105	ELECT 10UF M 16V
C4058	403 105 9105	ELECT 10UF M 16V
C4059	403 105 9105	ELECT 10UF M 16V
C4060	403 105 9105	ELECT 10UF M 16V
C4061	403 114 4504	ELECT 4.7UF M 25V
C4101	403 068 6104	CERAMIC 0.068UF M 25V
C4102	403 100 9704	CERAMIC 0.1UF M 25V
C4103	403 073 9107	CERAMIC 4700PF K 50V
C4104	403 067 9304	CERAMIC 0.01UF K 25V
C4105	403 031 2201	CERAMIC 680PF J 50V
C4151	403 105 9105	ELECT 10UF M 16V
C4152	403 042 8407	ELECT 22UF M 16V
C4153	403 042 8407	ELECT 22UF M 16V
C4154	403 042 8407	ELECT 22UF M 16V
C4155	403 087 0008	NP-ELECT 2.2UF M 35V
C4201	403 010 1102	CERAMIC 1000PF J 50V
C4202	403 068 3301	CERAMIC 0.033UF K 25V
C4203	403 024 7206	CERAMIC 390PF J 50V
C4205	403 033 4500	CERAMIC 82PF J 50V
C4206	403 068 3608	CERAMIC 0.033UF Z 25V
C4207	403 068 3301	CERAMIC 0.033UF K 25V
C4208	403 068 3301	CERAMIC 0.033UF K 25V
C4209	403 100 9704	CERAMIC 0.1UF M 25V
C4210	403 100 9704	CERAMIC 0.1UF M 25V
C4240	403 068 4407	CERAMIC 0.047UF K 25V
C4251	403 119 6909	ELECT 22UF M 6.3V
C4252	403 119 6909	ELECT 22UF M 6.3V
C4253	403 114 4603	ELECT 2.2UF M 50V
C4254	403 119 6909	ELECT 22UF M 6.3V
C4258	403 114 4603	ELECT 2.2UF M 50V
C4260	403 114 4504	ELECT 4.7UF M 25V
C4261	403 114 4504	ELECT 4.7UF M 25V
C4262	403 100 9704	CERAMIC 0.1UF M 25V
C4263	403 100 9704	CERAMIC 0.1UF M 25V
C4264	403 092 5005	TA-SOLID 0.1UF M 35V
C4265	403 067 9304	CERAMIC 0.01UF K 25V
C4266	403 092 5005	TA-SOLID 0.1UF M 35V
C4267	403 074 7607	CERAMIC 5600PF K 50V
		(DIODES)
D4001	407 004 0706	DIODE DCB015
D4002	407 004 0706	DIODE DCB015
D4004	407 004 0706	DIODE DCB015
D4005	407 004 0706	DIODE DCB015
D4006	4–202F–00400	DIODE
D4007	407 004 0201	DIODE DCA015
D4008	407 004 0706	DIODE DCB015
D4009	407 004 1000	DIODE DCC010
D4010	407 004 0201	DIODE DCA015
		(INTEGRATED CIRCUITS)
IC4001	410 026 9206	IC HD6305Z0A05F
IC4002	410 030 6802	IC HD6305Z0A09F
IC4003	409 004 8607	IC CX20115
IC4004	409 004 9307	IC CX22022
IC4005	409 004 7006	IC CX20036
IC4006	409 051 6304	IC TC4526BF
IC4007	409 111 8309	IC TA8401F
IC4008	410 023 8806	IC MB3763PF-G-BND-TF
IC4009	409 020 9305	IC LC4069UBM
IC4010	409 018 3704	IC LA6358M
IC4011	409 018 3704	IC LA6358M
IC4012	409 051 6601	IC TC4538BF
IC4013	409 020 8902	IC LC4066BM
IC4014	409 018 3704	IC LA6358M
IC4015	409 018 3704	IC LA6358M
		(COILS)
L4001	4–253F–80718	HF CHOKE 330UH
L4002	4–253F–80718	HF CHOKE 330UH
L4003	4–253F–80718	HF CHOKE 330UH
		(TRANSISTORS)
Q4001	405 018 2402	TR 2SC3398
Q4002	405 018 2402	TR 2SC3398
Q4003	405 026 2203	TR 2SD999-CK
Q4004	405 015 8704	TR 2SC2812-L6
Q4005	405 015 8704	TR 2SC2812-L6
Q4006	405 002 8304	TR 2SA1203-Y
Q4007	405 002 8304	TR 2SA1203-Y
Q4009	405 015 8407	TR 2SC2812-L5
Q4010	405 002 6508	TR 2SA1179-M5
Q4011	405 015 8407	TR 2SC2812-L5
Q4012	405 002 6508	TR 2SA1179-M5
Q4013	405 015 8407	TR 2SC2812-L5
Q4014	405 002 6508	TR 2SA1179-M5
Q4015	405 003 7306	TR 2SA1343
Q4016	405 015 8407	TR 2SC2812-L5
Q4017	405 003 7306	TR 2SA1343
Q4018	405 018 1900	TR 2SC3395
Q4019	405 015 8704	TR 2SC2812-L6
Q4020	405 002 6706	TR 2SA1179-M6
Q4027	405 003 7108	TR 2SA1341
Q4028	405 018 1900	TR 2SC3395
		(RESISTORS)
R4001	401 037 5202	MT-GLAZE 100 OHM J 1/10W
R4003	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R4004	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4005	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4006	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4007	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4008	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4009	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4010	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4011	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4012	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4013	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4014	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4015	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4016	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4017	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4018	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4019	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R4020	401 037 5202	MT-GLAZE 100 OHM J 1/10W
R4021	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4022	401 038 7809	MT-GLAZE 56K OHM J 1/10W
R4024	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4025	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4027	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4028	401 037 9408	MT-GLAZE 180K OHM J 1/10W
R4029	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4030	401 037 8005	MT-GLAZE 15K OHM J 1/10W
R4031	401 038 3801	MT-GLAZE 330K OHM J 1/10W
R4032	401 037 8104	MT-GLAZE 150K OHM J 1/10W
R4034	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R4035	401 038 5102	MT-GLAZE 3.9K OHM J 1/10W
R4036	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R4037	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4038	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4039	401 038 5300	MT-GLAZE 39K OHM J 1/10W
R4040	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4041	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4042	401 038 5300	MT-GLAZE 39K OHM J 1/10W
R4043	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4044	401 037 5707	MT-GLAZE 100K OHM J 1/10W

SV-2 BOARD

Location	Part No.	Description
R4051	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R4090	401 038 7908	MT-GLAZE 560K OHM J 1/10W
R4091	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4092	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4093	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4094	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4096	401 037 6605	MT-GLAZE 120 OHM J 1/10W
R4101	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4102	401 037 5103	MT-GLAZE 10 OHM J 1/10W
R4103	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R4104	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R4105	401 038 6604	MT-GLAZE 470K OHM J 1/10W
R4106	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4107	401 037 8005	MT-GLAZE 15K OHM J 1/10W
R4108	401 037 8005	MT-GLAZE 15K OHM J 1/10W
R4109	401 038 2101	MT-GLAZE 2.7K OHM J 1/10W
R4111	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R4112	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R4113	401 037 6902	MT-GLAZE 120K OHM J 1/10W
R4114	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R4115	401 036 3605	MT-GLAZE 3.3 OHM J 1/8W
R4116	401 036 3605	MT-GLAZE 3.3 OHM J 1/8W
R4117	401 036 3605	MT-GLAZE 3.3 OHM J 1/8W
R4118	401 040 9600	MT-FILM 0.22 OHM F 1/4W
or	401 103 1800	MT-FILM 0.22 OHM G 1/4W
R4119	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R4120	401 037 6803	MT-GLAZE 12K OHM J 1/10W
R4122	401 037 8005	MT-GLAZE 15K OHM J 1/10W
R4123	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R4153	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4154	401 038 6505	MT-GLAZE 47K OHM J 1/10W
R4156	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R4201	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4202	401 039 0502	MT-GLAZE 82K OHM J 1/10W
R4203	401 038 2200	MT-GLAZE 27K OHM J 1/10W
R4204	401 037 5202	MT-GLAZE 100 OHM J 1/10W
R4205	401 038 2200	MT-GLAZE 27K OHM J 1/10W
R4206	401 037 5202	MT-GLAZE 100 OHM J 1/10W
R4207	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4208	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4209	401 037 9309	MT-GLAZE 18K OHM J 1/10W
R4211	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R4212	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R4213	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R4214	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4215	401 038 5003	MT-GLAZE 390 OHM J 1/10W
R4216	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R4217	401 037 5202	MT-GLAZE 100 OHM J 1/10W
R4218	401 037 5202	MT-GLAZE 100 OHM J 1/10W
R4219	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4220	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R4250	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R4257	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R4260	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4262	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4263	401 037 8104	MT-GLAZE 150K OHM J 1/10W
R4264	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4265	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4267	401 038 3801	MT-GLAZE 330K OHM J 1/10W
R4269	401 038 2200	MT-GLAZE 27K OHM J 1/10W
R4270	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4271	401 038 5300	MT-GLAZE 39K OHM J 1/10W
R4272	401 038 7809	MT-GLAZE 56K OHM J 1/10W
R4273	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4276	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4291	401 038 3702	MT-GLAZE 33K OHM J 1/10W
		(TRANSFORMERS)
T4001	4-259F-00200	HF COIL TRANS
T4002	4-259F-00300	HF COIL TRANS
		(MISCELLANEOUS)
X4001	4-225F-00700	CRYSTAL

Location	Part No.	Description
	126-2-322T-03600	SHIELD PLATE
		(CAPACITORS)
C4301	403 042 8407	ELECT 22UF M 16V
C4302	403 042 8407	ELECT 22UF M 16V
C4303	403 105 9105	ELECT 10UF M 16V
C4304	403 044 0904	ELECT 47UF M 16V
C4305	403 100 9704	CERAMIC 0.1UF M 25V
C4306	403 121 6201	ELECT 82UF M 10V
C4307	403 100 9704	CERAMIC 0.1UF M 25V
C4308	403 121 6201	ELECT 82UF M 10V
C4311	403 091 0407	TA-SOLID 1UF M 16V
C4312	403 091 0407	TA-SOLID 1UF M 16V
C4313	403 091 0407	TA-SOLID 1UF M 16V
C4314	403 105 9105	ELECT 10UF M 16V
C4315	403 105 9105	ELECT 10UF M 16V
C4316	403 105 9105	ELECT 10UF M 16V
C4317	403 100 9704	CERAMIC 0.1UF M 25V
C4318	403 114 4702	ELECT 3.3UF M 50V
		(DIODES)
D4301	407 056 5605	ZENER DIODE RD4.3M B2
D4302	4-202F-00400	DIODE E10QS03
D4303	407 057 8902	ZENER DIODE RD8.2M B2
D4304	407 057 8902	ZENER DIODE RD8.2M B2
		(INTEGRATED CIRCUITS)
IC4301	409 004 8508	IC CX20114
		(COILS)
L4301	4-252F-00201	LF CHOKE 100UH
L4302	4-252F-00201	LF CHOKE 100UH
L4303	4-252F-00301	LF CHOKE 200UH
		(TRANSISTORS)
Q4301	405 047 9304	TR 2SB1205-S
Q4302	405 002 6706	TR 2SA1179-M6
Q4303	405 015 8704	TR 2SC2812-L6
Q4304	405 003 9904	TR 2SA1385-L
Q4305	405 015 8704	TR 2SC2812-L6
Q4307	405 014 4509	TR 2SC2412K-R
Q4308	405 002 6706	TR 2SA1179-M6
		(RESISTORS)
R4301	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4302	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R4303	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R4304	401 036 1403	MT-GLAZE 220 OHM J 1/8W
R4307	401 038 2101	MT-GLAZE 2.7K OHM J 1/10W
R4308	401 037 6704	MT-GLAZE 1.2K OHM J 1/10W
R4309	401 037 6704	MT-GLAZE 1.2K OHM J 1/10W
R4310	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R4311	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R4312	401 037 5202	MT-GLAZE 100 OHM J 1/10W
R4314	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4315	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4316	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R4317	401 038 0602	MT-GLAZE 220 OHM J 1/10W
R4318	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R4319	401 037 8104	MT-GLAZE 150K OHM J 1/10W
R4320	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R4321	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4322	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R4323	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R4324	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
R4325	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R4326	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R4327	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R4330	401 037 5608	MT-GLAZE 10K OHM J 1/10W
		(SEMI VARIABLE RESISTORS)
SVR4301	4-222F-60704	SEMI VR 1K OHM
SVR4303	4-222F-60809	SEMI VR 20K OHM

Location	Part No.	Description
SVR4303	4-222F-60914	SEMI VR 22K OHM
SVR4304	4-222F-60711	SEMI VR 50K OHM
SVR4305	4-222F-60712	SEMI VR 100K OHM
SVR4306	4-222F-60312	100K OHM
SVR4307	4-222V-31500	100K OHM
		(MISCELLANEOUS)
F4301	⚠ 4-201V-00102	CIRCUIT PROTECTOR
F4302	⚠ 4-201V-00103	FUSE

SV-3 BOARD

Location	Part No.	Description
	126-2-351T-01000	BRACKET MTG
	126-2-327T-02100	INSULATOR
		(CAPACITORS)
C3501	403 090 1405	TA-SOLID 47UF M 6.3V
		(TRANSISTORS)
Q3501	405 018 2402	TR 2SC3398
Q3502	405 018 2402	TR 2SC3398
Q3503	405 018 2402	TR 2SC3398
Q3504	405 015 8704	TR 2SC2812-L6
Q3505	405 060 6502	TR DTC144TK
Q3506	405 060 6502	TR DTC144TK
		(RESISTORS)
R3501	401 038 1807	MT-GLAZE 27 OHM J 1/10W
R3502	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R3503	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R3505	401 038 1203	MT-GLAZE 240 OHM J 1/10W
R3506	401 038 1203	MT-GLAZE 240 OHM J 1/10W
R3507	401 038 1203	MT-GLAZE 240 OHM J 1/10W

TB-1 BOARD

Location	Part No.	Description
		(TRANSISTORS)
Q8671	407 042 9907	PHOTO DIODE NJL7141ES

TB-2 BOARD

Location	Part No.	Description
		(TRANSISTORS)
Q8672	407 042 9907	PHOTO DIODE NJL7141ES

TB-3 BOARD

Location	Part No.	Description
		(TRANSISTORS)
Q8806	405 064 8908	TR 2SD1406-Y LB SAN V

CA-1 BOARD

Location	Part No.	Description
	126-2-322T-03900	SHIELD PLATE, SIDE A
	126-2-322T-04000	SHIELD PLATE, SIDE B
	126-2-327T-02600	INSULATOR
		(CAPACITORS)
C9101	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9102	403 068 0409	CERAMIC 0.1UF Z 25V
C9103	403 040 3701	ELECT 220UF M 10V
C9104	403 068 0409	CERAMIC 0.1UF Z 25V
C9105	403 091 4801	TA-SOLID 3.3UF M 16V
C9106	403 068 0409	CERAMIC 0.1UF Z 25V
C9109	403 091 0407	TA-SOLID 1UF M 16V
C9111	403 068 0409	CERAMIC 0.1UF Z 25V
C9114	403 089 4806	TA-SOLID 10UF M 4V
C9115	403 068 0409	CERAMIC 0.1UF Z 25V
C9116	403 091 4801	TA-SOLID 3.3UF M 16V
C9117	403 068 0409	CERAMIC 0.1UF Z 25V
C9118	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9119	403 114 5402	TA-SOLID 2.2UF M 10V
C9121	403 068 0409	CERAMIC 0.1UF Z 25V
C9122	403 114 5402	TA-SOLID 2.2UF M 10V
C9123	403 009 5708	CERAMIC 100PF J 50V
C9124	403 009 5708	CERAMIC 100PF J 50V
C9125	403 009 5708	CERAMIC 100PF J 50V
C9126	403 091 4801	TA-SOLID 3.3UF M 16V
C9127	403 091 4801	TA-SOLID 3.3UF M 16V
C9128	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9129	403 026 2803	CERAMIC 47PF J 50V
C9131	403 026 2803	CERAMIC 47PF J 50V
C9132	403 069 5601	CERAMIC 0.01UF K 50V
C9133	403 090 2006	TA-SOLID 6.8UF M 6.3V
C9142	403 010 1102	CERAMIC 1000PF J 50V
C9143	403 068 0409	CERAMIC 0.1UF Z 25V
C9144	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9145	403 069 5601	CERAMIC 0.01UF K 50V
C9147	403 018 0503	CERAMIC 22PF J 50V
C9148	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9149	403 068 0409	CERAMIC 0.1UF Z 25V
C9151	403 011 4904	CERAMIC 120PF J 50V
C9152	403 068 0409	CERAMIC 0.1UF Z 25V
C9153	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9154	403 091 0407	TA-SOLID 1UF M 16V
C9155	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9156	403 091 8809	TA-SOLID 0.47UF M 25V
C9157	403 091 0407	TA-SOLID 1UF M 16V
C9158	403 091 8809	TA-SOLID 0.47UF M 25V
C9159	403 091 8809	TA-SOLID 0.47UF M 25V
C9161	403 091 8809	TA-SOLID 0.47UF M 25V
C9162	403 091 8809	TA-SOLID 0.47UF M 25V
C9163	403 091 0407	TA-SOLID 1UF M 16V
C9166	403 091 0407	TA-SOLID 1UF M 16V
C9167	403 091 4801	TA-SOLID 3.3UF M 16V
C9168	403 024 2102	CERAMIC 39PF J 50V
C9169	403 024 2102	CERAMIC 39PF J 50V
C9172	403 024 2102	CERAMIC 39PF J 50V
C9173	403 114 5402	TA-SOLID 2.2UF M 10V
C9174	403 068 0409	CERAMIC 0.1UF Z 25V
C9175	403 091 4801	TA-SOLID 3.3UF M 16V
C9176	403 091 0407	TA-SOLID 1UF M 16V
C9177	403 068 0409	CERAMIC 0.1UF Z 25V
C9178	403 091 4801	TA-SOLID 3.3UF M 16V
C9179	403 089 4806	TA-SOLID 10UF M 4V
C9181	403 114 5402	TA-SOLID 2.2UF M 10V
C9182	403 069 5601	CERAMIC 0.01UF K 50V
C9183	403 069 5601	CERAMIC 0.01UF K 50V
C9184	403 069 5601	CERAMIC 0.01UF K 50V
C9186	403 069 5601	CERAMIC 0.01UF K 50V
C9187	403 010 1102	CERAMIC 1000PF J 50V
C9189	403 010 1102	CERAMIC 1000PF J 50V
C9192	403 026 2803	CERAMIC 47PF J 50V
C9193	403 026 2803	CERAMIC 47PF J 50V
C9194	403 008 7406	CERAMIC 10PF D 50V
C9198	403 010 1102	CERAMIC 1000PF J 50V

Location	Part No.	Description
C9199	403 029 3708	CERAMIC 6PF C 50V
		(DIODES)
D9101	407 004 0706	DIODE DCB015
D9102	407 094 6206	VARACTOR DI 1SV200
D9103	407 004 0201	DIODE DCA015
D9104	407 004 0201	DIODE DCA015
D9105	407 008 6209	DIODE MA153
D9106	407 004 0201	DIODE DCA015
D9107	407 004 5602	DIODE DSA015
D9108	407 004 5602	DIODE DSA015
		(INTEGRATED CIRCUITS)
IC9101	409 004 6108	IC CX10045
IC9103	409 004 9109	IC CX20180
IC9104	409 111 6107	IC CXB0026M
IC9105	409 111 6107	IC CXB0026M
IC9106	409 119 8707	IC CXD1157Q-Z
IC9107	409 119 8806	IC CXD1158M
IC9109	409 111 5902	IC AN608P
		(COILS)
L9101	4-253F-80513	HF CHOKE 10UH
L9102	4-253F-80513	HF CHOKE 10UH
L9103	4-253F-10103	HF CHOKE 10UH
L9105	4-253F-80724	HF CHOKE 1000UH
L9106	4-253F-10103	HF CHOKE 10UH
		(TRANSISTORS)
Q9105	405 027 9706	TR 2SK94-X3
Q9106	405 027 9706	TR 2SK94-X3
Q9107	405 027 9706	TR 2SK94-X3
Q9108	405 015 8704	TR 2SC2812-L6
Q9109	405 015 8704	TR 2SC2812-L6
		(RESISTORS)
R9105	401 038 2101	MT-GLAZE 2.7K OHM J 1/10W
R9106	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R9107	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9109	401 038 7601	MT-GLAZE 560 OHM J 1/10W
R9111	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R9112	401 038 0602	MT-GLAZE 220 OHM J 1/10W
R9113	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R9114	401 038 0602	MT-GLAZE 220 OHM J 1/10W
R9115	401 038 0602	MT-GLAZE 220 OHM J 1/10W
R9116	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R9117	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R9118	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R9119	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R9121	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R9122	401 038 9308	MT-GLAZE 68K OHM J 1/10W
R9123	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R9125	401 037 6803	MT-GLAZE 12K OHM J 1/10W
R9127	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9128	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R9129	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R9131	401 038 3405	MT-GLAZE 33 OHM J 1/10W
R9132	401 038 3405	MT-GLAZE 33 OHM J 1/10W
R9133	401 038 3405	MT-GLAZE 33 OHM J 1/10W
R9134	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R9135	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R9136	401 038 2101	MT-GLAZE 2.7K OHM J 1/10W
R9137	401 037 9309	MT-GLAZE 18K OHM J 1/10W
R9138	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9139	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9141	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9142	401 037 6704	MT-GLAZE 1.2K OHM J 1/10W
R9143	401 037 6704	MT-GLAZE 1.2K OHM J 1/10W
R9144	401 038 5102	MT-GLAZE 3.9K OHM J 1/10W
R9145	401 038 5102	MT-GLAZE 3.9K OHM J 1/10W
R9146	401 037 6803	MT-GLAZE 12K OHM J 1/10W
R9148	401 038 7205	MT-GLAZE 5.1K OHM J 1/10W

Location	Part No.	Description
R9149	401 037 6803	MT-GLAZE 12K OHM J 1/10W
R9151	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9152	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R9154	401 037 9309	MT-GLAZE 18K OHM J 1/10W
R9155	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9158	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9159	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R9161	401 037 6704	MT-GLAZE 1.2K OHM J 1/10W
R9162	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
R9163	401 038 0602	MT-GLAZE 220 OHM J 1/10W
R9164	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9165	401 038 3504	MT-GLAZE 330 OHM J 1/10W
R9166	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9169	401 037 5806	MT-GLAZE 1M OHM J 1/10W
R9171	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R9172	401 037 6803	MT-GLAZE 12K OHM J 1/10W
R9173	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9174	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9175	401 038 2101	MT-GLAZE 2.7K OHM J 1/10W
R9176	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R9177	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9178	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9181	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R9182	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9183	401 035 4108	MT-GLAZE 0 OHM Z 1/8W
R9184	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9185	401 039 0304	MT-GLAZE 820 OHM J 1/10W
R9186	401 038 9803	MT-GLAZE 75K OHM J 1/10W
R9187	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9188	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R9196	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R9197	401 037 5806	MT-GLAZE 1M OHM J 1/10W
R9198	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R9199	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
		(SEMI VARIABLE RESISTORS)
SVR9101	4-222F-60808	SEMI VR 10K OHM
or	4-222F-60912	SEMI VR 10K OHM
		(TRANSFORMERS)
T9101	4-259F-01600	HF COIL TRANS
		(MISCELLANEOUS)
F9101	4-953V-29300	FILTER
VC9101	4-224F-11300	TRIMMER
X9101	4-225F-90100	CRYSTAL UNIT 28.37500MHZ
X9102	4-225F-00400	CRYSTAL 17.73476MHZ

CA-2 BOARD

Location	Part No.	Description
		(CAPACITORS)
C9203	403 092 6606	TA-SOLID 0.22UF M 35V
C9204	403 114 4207	ELECT 47UF M 4V
C9205	403 089 6206	TA-SOLID 4.7UF M 4V
C9206	403 068 0409	CERAMIC 0.1UF Z 25V
C9207	403 017 0900	CERAMIC 20PF J 50V
C9208	403 038 2105	ELECT 100UF M 6.3V
C9209	403 068 0409	CERAMIC 0.1UF Z 25V
C9211	403 068 0409	CERAMIC 0.1UF Z 25V
C9212	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9213	403 068 0409	CERAMIC 0.1UF Z 25V
C9214	403 068 0409	CERAMIC 0.1UF Z 25V
C9215	403 114 5402	TA-SOLID 2.2UF M 10V
C9216	403 069 5601	CERAMIC 0.01UF K 50V
C9217	403 068 0409	CERAMIC 0.1UF Z 25V
C9218	403 114 5600	TA-SOLID 3.3UF M 6.3V

Location	Part No.	Description
C9219	403 068 0409	CERAMIC 0.1UF Z 25V
C9221	403 089 6206	TA-SOLID 4.7UF M 4V
C9222	403 069 5601	CERAMIC 0.01UF K 50V
C9223	403 114 5402	TA-SOLID 2.2UF M 10V
C9225	403 030 6903	CERAMIC 68PF J 50V
C9226	403 089 6206	TA-SOLID 4.7UF M 4V
C9227	403 091 0407	TA-SOLID 1UF M 16V
C9228	403 114 4207	ELECT 47UF M 4V
C9229	403 068 0409	CERAMIC 0.1UF Z 25V
C9232	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9233	403 091 0407	TA-SOLID 1UF M 16V
C9234	403 091 0407	TA-SOLID 1UF M 16V
C9235	403 105 9105	ELECT 10UF M 16V
C9236	403 068 0409	CERAMIC 0.1UF Z 25V
C9237	403 038 6707	ELECT 220UF M 6.3V
C9238	403 068 0409	CERAMIC 0.1UF Z 25V
C9239	403 114 5402	TA-SOLID 2.2UF M 10V
C9241	403 068 0409	CERAMIC 0.1UF Z 25V
C9242	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9243	403 038 6707	ELECT 220UF M 6.3V
C9244	403 020 0409	CERAMIC 27PF J 50V
C9245	403 119 6909	ELECT 22UF M 6.3V
		(INTEGRATED CIRCUITS)
IC9201	409 111 5506	IC AN2150S
IC9202	409 018 4701	IC LA6458M
IC9203	409 119 8905	IC MSM6985MS-K
IC9204	409 111 5605	IC AN2250S
		(COILS)
L9201	4–253F–80522	HF CHOKE 56UH
L9202	4–253F–10103	HF CHOKE 10UH
L9203	4–253F–10103	HF CHOKE 10UH
L9204	4–253F–80722	HF CHOKE 680UH
		(TRANSISTORS)
Q9201	405 002 6706	TR 2SA1179-M6
Q9203	405 015 8704	TR 2SC2812-L6
Q9204	405 015 8704	TR 2SC2812-L6
Q9205	405 015 8704	TR 2SC2812-L6
Q9206	405 002 6706	TR 2SA1179-M6
Q9207	405 018 2006	TR 2SC3396
Q9208	405 015 8704	TR 2SC2812-L6
		(RESISTORS)
R9201	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9204	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9211	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9213	401 038 0909	MT-GLAZE 220K OHM J 1/10W
R9214	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9215	401 039 0502	MT-GLAZE 82K OHM J 1/10W
R9217	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9218	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9219	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9221	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9222	401 038 9001	MT-GLAZE 680 OHM J 1/10W
R9223	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9224	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R9225	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9226	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R9227	401 037 9309	MT-GLAZE 18K OHM J 1/10W
R9228	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9229	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R9231	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9232	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9233	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R9234	401 037 5806	MT-GLAZE 1M OHM J 1/10W
R9236	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9238	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R9239	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R9241	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R9242	401 037 5608	MT-GLAZE 10K OHM J 1/10W

Location	Part No.	Description
R9243	401 038 7601	MT-GLAZE 560 OHM J 1/10W
R9244	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9245	401 039 0205	MT-GLAZE 82 OHM J 1/10W
R9251	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R9252	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9253	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R9254	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R9255	401 038 3504	MT-GLAZE 330 OHM J 1/10W
R9256	401 037 6902	MT-GLAZE 120K OHM J 1/10W
R9257	401 038 7809	MT-GLAZE 56K OHM J 1/10W
		(SEMI VARIABLE RESISTORS)
SVR9201	4–222F–60805	SEMI VR 2K OHM
or	4–222F–60908	SEMI VR 2.2K OHM
		(SWITCHES)
S9201	4–231F–60601	PUSH SWITCH, FOCUS REV
S9202	4–231F–60601	PUSH SWITCH, HIGH SPEED SHUTTER
		(TRANSFORMERS)
T9201	4–259F–01000	HF COIL TRANS
T9202	4–259F–01300	HF COIL TRANS
T9203	4–259F–01500	HF COIL TRANS
T9204	4–259F–01800	HF COIL TRANS
T9205	4–259F–01700	HF COIL TRANS

CA-3 BOARD

Location	Part No.	Description
	126–2–322T–04600	SHIELD PLATE, SENSOR (BIG)
	126–2–322T–04700	SHIELD PLATE, SENSOR (SMALL)
	126–2–472T–01800	LUG, WHITE BALANCE SW
		(CAPACITORS)
C9301	403 119 6909	ELECT 22UF M 6.3V
C9302	403 119 6909	ELECT 22UF M 6.3V
C9304	403 068 0409	CERAMIC 0.1UF Z 25V
C9305	403 068 0409	CERAMIC 0.1UF Z 25V
C9306	403 114 4207	ELECT 47UF M 4V
C9307	403 114 4207	ELECT 47UF M 4V
C9308	403 114 4207	ELECT 47UF M 4V
C9309	403 068 0409	CERAMIC 0.1UF Z 25V
C9311	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9312	403 068 0409	CERAMIC 0.1UF Z 25V
C9313	403 040 3701	ELECT 220UF M 10V
C9314	403 068 0409	CERAMIC 0.1UF Z 25V
C9315	403 026 2803	CERAMIC 47PF J 50V
C9316	403 068 0409	CERAMIC 0.1UF Z 25V
C9317	403 089 6206	TA-SOLID 4.7UF M 4V
C9318	403 089 6206	TA-SOLID 4.7UF M 4V
C9319	403 068 0409	CERAMIC 0.1UF Z 25V
C9321	403 068 0409	CERAMIC 0.1UF Z 25V
C9323	403 114 4207	ELECT 47UF M 4V
C9324	403 068 0409	CERAMIC 0.1UF Z 25V
C9325	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9326	403 068 0409	CERAMIC 0.1UF Z 25V
C9327	403 069 5601	CERAMIC 0.01UF K 50V
C9329	403 114 4207	ELECT 47UF M 4V
C9331	403 089 6206	TA-SOLID 4.7UF M 4V
C9332	403 069 5601	CERAMIC 0.01UF K 50V
C9333	403 069 5601	CERAMIC 0.01UF K 50V
C9334	403 068 0409	CERAMIC 0.1UF Z 25V
C9335	403 068 0409	CERAMIC 0.1UF Z 25V
C9336	403 114 5402	TA-SOLID 2.2UF M 10V
C9337	403 114 4207	ELECT 47UF M 4V
C9338	403 068 0409	CERAMIC 0.1UF Z 25V

Location	Part No.	Description
C9342	403 068 0409	CERAMIC 0.1UF Z 25V
C9343	403 068 0409	CERAMIC 0.1UF Z 25V
C9354	403 069 5601	CERAMIC 0.01UF K 50V
C9355	403 068 0409	CERAMIC 0.1UF Z 25V
C9356	403 069 5601	CERAMIC 0.01UF K 50V
C9357	403 010 1102	CERAMIC 1000PF J 50V
C9358	403 089 6206	TA-SOLID 4.7UF M 4V
C9359	403 017 0900	CERAMIC 20PF J 50V
C9361	403 089 6206	TA-SOLID 4.7UF M 4V
C9362	403 089 6206	TA-SOLID 4.7UF M 4V
C9363	403 068 0409	CERAMIC 0.1UF Z 25V
C9365	403 089 6206	TA-SOLID 4.7UF M 4V
C9366	403 068 0409	CERAMIC 0.1UF Z 25V
C9367	403 089 6206	TA-SOLID 4.7UF M 4V
C9368	403 017 0900	CERAMIC 20PF J 50V
C9369	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9371	403 068 0409	CERAMIC 0.1UF Z 25V
C9372	403 068 0409	CERAMIC 0.1UF Z 25V
C9373	403 014 3409	CERAMIC 18PF J 50V
C9374	403 030 6903	CERAMIC 68PF J 50V
C9375	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9376	403 091 0407	TA-SOLID 1UF M 16V
C9377	403 010 1102	CERAMIC 1000PF J 50V
C9378	403 010 1102	CERAMIC 1000PF J 50V
C9379	403 009 5708	CERAMIC 100PF J 50V
C9381	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9382	403 069 5601	CERAMIC 0.01UF K 50V
C9384	403 068 0409	CERAMIC 0.1UF Z 25V
		(DIODES)
D9302	4-198F-00200	WHITE SENSOR
D9303	407 079 3503	DIODE RD3.0M B2
		(INTEGRATED CIRCUITS)
IC9301	409 111 5704	IC AN2350S
IC9302	409 111 7609	IC MN4053BS
IC9303	409 119 8905	IC MSM6985MS-K
IC9304	409 018 4008	IC LA6393M
IC9305	409 020 7301	IC LC4013BM
IC9306	409 111 5803	IC AN2450S
IC9307	409 039 4704	IC NJM082BM
IC9308	409 018 4701	IC LA6458M
IC9309	409 113 8901	IC MN4052BS
		(COILS)
L9301	4-253F-80513	HF CHOKE 10UH
L9302	4-253F-10103	HF CHOKE 10UH
L9303	4-253F-80522	HF CHOKE 56UH
		(TRANSISTORS)
Q9302	405 015 8704	TR 2SC2812-L6
Q9303	405 015 8704	TR 2SC2812-L6
Q9304	405 015 8704	TR 2SC2812-L6
Q9305	405 015 8704	TR 2SC2812-L6
Q9308	405 015 8704	TR 2SC2812-L6
Q9309	405 002 6706	TR 2SA1179-M6
Q9311	406 004 2703	TR 2SC3064-G-6B-TH
Q9312	405 015 8704	TR 2SC2812-L6
Q9313	405 015 8704	TR 2SC2812-L6
		(RESISTORS)
R9301	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9302	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9303	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9304	401 038 7908	MT-GLAZE 560K OHM J 1/10W
R9305	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R9306	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9307	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9308	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9309	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9311	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9312	401 037 5608	MT-GLAZE 10K OHM J 1/10W

Location	Part No.	Description
R9313	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9315	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R9317	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9319	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9321	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9322	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9323	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9324	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9325	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9326	401 038 9001	MT-GLAZE 680 OHM J 1/10W
R9327	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R9328	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R9329	401 038 7601	MT-GLAZE 560 OHM J 1/10W
R9332	401 038 6307	MT-GLAZE 470 OHM J 1/10W
R9333	401 038 0909	MT-GLAZE 220K OHM J 1/10W
R9334	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R9336	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R9337	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R9338	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R9339	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9343	401 038 3405	MT-GLAZE 33 OHM J 1/10W
R9344	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9345	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R9346	401 038 3405	MT-GLAZE 33 OHM J 1/10W
R9347	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R9348	401 038 6406	MT-GLAZE 4.7K OHM J 1/10W
R9349	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R9351	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9352	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9353	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9354	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9355	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9357	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9358	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9359	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9361	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9362	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9363	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9364	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9365	401 037 8104	MT-GLAZE 150K OHM J 1/10W
R9366	401 037 8104	MT-GLAZE 150K OHM J 1/10W
R9367	401 037 8104	MT-GLAZE 150K OHM J 1/10W
R9368	401 037 8104	MT-GLAZE 150K OHM J 1/10W
R9369	401 037 6704	MT-GLAZE 1.2K OHM J 1/10W
R9371	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9372	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9375	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R9382	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R9383	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R9384	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R9385	401 038 0909	MT-GLAZE 220K OHM J 1/10W
R9386	401 038 0909	MT-GLAZE 220K OHM J 1/10W
R9387	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R9391	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9392	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R9393	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9394	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9395	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R9397	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R9398	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R9399	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
		(SEMI VARIABLE RESISTORS)
SVR9301	4-222F-60809	SEMI VR 20K OHM
or	4-222F-60914	SEMI VR 22K OHM
SVR9302	4-222F-60809	SEMI VR 20K OHM
or	4-222F-60914	SEMI VR 22K OHM
SVR9303	4-222F-60805	SEMI VR 2K OHM
or	4-222F-60908	SEMI VR 2.2K OHM
SVR9304	4-222F-60814	SEMI VR 300K OHM
or	4-222F-60921	SEMI VR 330K OHM
SVR9305	4-222F-60814	SEMI VR 300K OHM
or	4-222F-60921	SEMI VR 330K OHM

Location	Part No.	Description
SVR9306	4–222F–60805	SEMI VR 2K OHM
or	4–222F–60908	SEMI VR 2.2K OHM
SVR9307	4–222F–60805	SEMI VR 2K OHM
or	4–222F–60908	SEMI VR 2.2K OHM
SVR9308	4–222F–60809	SEMI VR 20K OHM
or	4–222F–60914	SEMI VR 22K OHM
SVR9309	4–222F–60809	SEMI VR 20K OHM
or	4–222F–60914	SEMI VR 22K OHM
SVR9311	4–222F–60809	SEMI VR 20K OHM
or	4–222F–60914	SEMI VR 22K OHM
SVR9312	4–222F–60805	SEMI VR 2K OHM
or	4–222F–60908	SEMI VR 2.2K OHM
SVR9313	4–222F–60809	SEMI VR 20K OHM
or	4–222F–60914	SEMI VR 22K OHM
SVR9314	4–222F–60809	SEMI VR 20K OHM
or	4–222F–60914	SEMI VR 22K OHM
SVR9317	4–222F–60809	SEMI VR 20K OHM
or	4–222F–60914	SEMI VR 22K OHM
SVR9318	4–222F–60809	SEMI VR 20K OHM
or	4–222F–60914	SEMI VR 22K OHM
SVR9319	4–222F–60808	SEMI VR 10K OHM
or	4–222F–60912	SEMI VR 10K OHM
SVR9321	4–222F–60808	SEMI VR 10K OHM
or	4–222F–60912	SEMI VR 10K OHM
SVR9322	4–222F–60808	SEMI VR 10K OHM
or	4–222F–60912	SEMI VR 10K OHM
SVR9323	4–222F–60809	SEMI VR 20K OHM
or	4–222F–60914	SEMI VR 22K OHM
		(SWITCHES)
S9301	4–231V–27300	SLIDE SWITCH, WHITE BALANCE
		(TRANSFORMERS)
T9301	4–259F–00900	HF COIL TRANS
T9302	4–259F–01800	HF COIL TRANS
T9305	4–259F–01200	HF COIL TRANS

CA-4 BOARD

Location	Part No.	Description
		(CAPACITORS)
C9401	403 114 5402	TA-SOLID 2.2UF M 10V
C9402	403 069 5601	CERAMIC 0.01UF K 50V
C9404	403 069 5601	CERAMIC 0.01UF K 50V
C9405	403 069 5601	CERAMIC 0.01UF K 50V
C9406	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9407	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9408	403 068 0409	CERAMIC 0.1UF Z 25V
C9409	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9411	403 114 3903	CERAMIC 0.22UF Z 50V
C9412	403 091 0407	TA-SOLID 1UF M 16V
C9413	403 068 0409	CERAMIC 0.1UF Z 25V
C9414	403 071 8102	CERAMIC 2200PF K 50V
C9415	403 068 0409	CERAMIC 0.1UF Z 25V
C9416	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9417	403 068 0409	CERAMIC 0.1UF Z 25V
C9418	403 068 0409	CERAMIC 0.1UF Z 25V
C9419	403 068 0409	CERAMIC 0.1UF Z 25V
C9421	403 022 8205	CERAMIC 33PF J 50V
C9422	403 022 8205	CERAMIC 33PF J 50V
C9423	403 009 5708	CERAMIC 100PF J 50V
C9424	403 009 5708	CERAMIC 100PF J 50V
C9425	403 068 0409	CERAMIC 0.1UF Z 25V
C9426	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9427	403 068 0409	CERAMIC 0.1UF Z 25V
C9428	403 068 0409	CERAMIC 0.1UF Z 25V
C9431	403 069 5601	CERAMIC 0.01UF K 50V
C9432	403 114 5402	TA-SOLID 2.2UF M 10V
C9433	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9434	403 114 5402	TA-SOLID 2.2UF M 10V
C9435	403 114 5402	TA-SOLID 2.2UF M 10V
C9436	403 114 5600	TA-SOLID 3.3UF M 6.3V
C9437	403 114 5402	TA-SOLID 2.2UF M 10V
C9438	403 114 5402	TA-SOLID 2.2UF M 10V
C9439	403 069 5601	CERAMIC 0.01UF K 50V
C9441	403 069 5601	CERAMIC 0.01UF K 50V
C9442	403 069 5601	CERAMIC 0.01UF K 50V
C9443	403 042 4904	ELECT 1000UF M 16V
		(DIODES)
D9401	407 008 6209	DIODE MA153
D9402	407 004 5602	DIODE DSA015
D9403	407 090 5104	DIODE RD2.0M-B
D9404	407 004 5602	DIODE DSA015
D9405	407 057 1101	ZENER DIODE RD5.6M B2
D9406	407 057 1101	ZENER DIODE RD5.6M B2
D9407	407 004 5602	DIODE DSA015
D9408	407 057 1101	ZENER DIODE RD5.6M B2
D9409	407 057 1101	ZENER DIODE RD5.6M B2
D9410	407 057 1101	ZENER DIODE RD5.6M B2
D9411	407 057 1101	ZENER DIODE RD5.6M B2
		(INTEGRATED CIRCUITS)
IC9401	409 111 6008	IC BA225AF
IC9402	409 018 3704	IC LA6358M
IC9403	410 023 8806	IC MB3763PF-G-BND-TF
IC9404	410 025 7401	IC TMP80C50AF-6-9661
IC9405	409 113 8307	IC LC9111A-098
IC9406	409 111 8200	IC NJM4556MB
IC9407	409 111 7906	IC MSM6219RS
		(COILS)
L9401	4–253F–80517	HF CHOKE
		(TRANSISTORS)
Q9401	405 015 8704	TR 2SC2812-L6
Q9402	405 018 2006	TR 2SC3396
Q9403	405 018 2006	TR 2SC3396
Q9405	405 060 6809	TR RN2406
Q9406	405 060 6809	TR RN2406
Q9407	405 060 6700	TR RN1406
Q9408	405 060 6700	TR RN1406
Q9409	405 015 8704	TR 2SC2812-L6
Q9411	405 002 6706	TR 2SA1179-M6
Q9412	405 015 8704	TR 2SC2812-L6
Q9413	405 015 8704	TR 2SC2812-L6
Q9414	405 002 6706	TR 2SA1179-M6
Q9415	405 015 8704	TR 2SC2812-L6
Q9416	405 015 8704	TR 2SC2812-L6
Q9417	405 015 8704	TR 2SC2812-L6
Q9422	405 064 9301	TR FMA1T99
Q9423	405 015 8704	TR 2SC2812-L6
		(RESISTORS)
R9401	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R9402	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R9403	401 038 3801	MT-GLAZE 330K OHM J 1/10W
R9404	401 037 8005	MT-GLAZE 15K OHM J 1/10W
R9405	401 038 6604	MT-GLAZE 470K OHM J 1/10W
R9406	401 038 0909	MT-GLAZE 220K OHM J 1/10W
R9407	401 037 9200	MT-GLAZE 1.8K OHM J 1/10W
R9408	401 037 5103	MT-GLAZE 10 OHM J 1/10W
R9409	401 038 5300	MT-GLAZE 39K OHM J 1/10W
R9411	401 038 5300	MT-GLAZE 39K OHM J 1/10W
R9412	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R9413	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R9414	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R9415	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R9416	401 037 5004	MT-GLAZE 0 OHM Z 1/10W

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Location	Part No.	Description
R9419	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9422	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R9424	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R9425	401 038 0800	MT-GLAZE 22K OHM J 1/10W
R9426	401 038 9308	MT-GLAZE 68K OHM J 1/10W
R9427	401 039 0403	MT-GLAZE 8.2K OHM J 1/10W
R9428	401 037 6803	MT-GLAZE 12K OHM J 1/10W
R9429	401 038 0909	MT-GLAZE 220K OHM J 1/10W
R9431	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9432	401 038 7205	MT-GLAZE 5.1K OHM J 1/10W
R9433	401 038 2101	MT-GLAZE 2.7K OHM J 1/10W
R9434	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9435	401 038 7205	MT-GLAZE 5.1K OHM J 1/10W
R9436	401 038 2101	MT-GLAZE 2.7K OHM J 1/10W
R9437	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R9438	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R9439	401 037 8005	MT-GLAZE 15K OHM J 1/10W
R9441	401 038 6208	MT-GLAZE 47 OHM J 1/10W
R9442	401 038 7601	MT-GLAZE 560 OHM J 1/10W
R9443	401 039 0403	MT-GLAZE 8.2K OHM J 1/10W
R9444	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9445	401 037 7800	MT-GLAZE 150 OHM J 1/10W
R9446	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9447	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R9448	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R9449	401 037 8104	MT-GLAZE 150K OHM J 1/10W
R9451	401 038 3801	MT-GLAZE 330K OHM J 1/10W
R9452	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9453	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
R9454	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R9456	401 037 9309	MT-GLAZE 18K OHM J 1/10W
R9457	401 037 6803	MT-GLAZE 12K OHM J 1/10W
R9461	401 039 0403	MT-GLAZE 8.2K OHM J 1/10W
R9462	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R9463	401 038 7601	MT-GLAZE 560 OHM J 1/10W
R9464	401 038 7908	MT-GLAZE 560K OHM J 1/10W
R9472	401 039 0403	MT-GLAZE 8.2K OHM J 1/10W
R9473	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9474	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9475	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9476	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9478	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9481	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R9482	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9484	401 037 6605	MT-GLAZE 120 OHM J 1/10W
R9485	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9486	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R9487	401 037 5806	MT-GLAZE 1M OHM J 1/10W
R9488	401 024 6403	CARBON 10 OHM J 1/6W
		(SEMI VARIABLE RESISTORS)
SVR9401	4–222F–60707	SEMI VR 5K OHM
		(SWITCHES)
S9401	4–231F–10700	SLIDE SWITCH, FOCUS
S9402	4–231F–10700	SLIDE SWITCH, IRIS
		(TRANSFORMERS)
T9401	4–259F–02000	HF COIL TRANS
		(MISCELLANEOUS)
A9401	⚠ 4–190F–00600	DC/DC CONVERTER

Location	Part No.	Description
		(CAPACITORS)
C9501	403 038 6707	ELECT 220UF M 6.3V
C9502	403 100 9506	CERAMIC 1500PF J 50V
C9503	403 105 9105	ELECT 10UF M 16V
C9504	403 070 9803	CERAMIC 0.015UF K 50V
C9505	403 117 8400	ELECT 0.47UF M 50V
C9506	403 018 7403	CERAMIC 220PF J 50V
C9507	403 038 2105	ELECT 100UF M 6.3V
C9508	403 114 4108	ELECT 33UF M 4V
C9509	403 114 4108	ELECT 33UF M 4V
C9510	403 091 6706	TA-SOLID 0.68UF M 20V
C9511	403 105 9105	ELECT 10UF M 16V
C9512	403 030 6903	CERAMIC 68PF J 50V
C9513	403 119 6909	ELECT 22UF M 6.3V
C9514	403 023 4404	CERAMIC 330PF J 50V
C9515	403 105 9303	ELECT 1UF M 50V
C9516	403 114 5303	POLYPRO 6800PF J 200V
C9517	403 044 0904	ELECT 47UF M 16V
C9518	403 051 8009	ELECT 10UF M 63V
C9519	403 090 6509	TA-SOLID 33UF M 10V
C9520	403 038 6707	ELECT 220UF M 6.3V
C9521	403 114 5204	POLYESTER 0.01UF K 250V
C9522	403 114 5105	POLYESTER 0.033UF K 100V
C9523	⚠ 403 076 6707	CERAMIC 1000PF K 1K
C9524	⚠ 403 076 6707	CERAMIC 1000PF K 1K
C9525	403 022 8205	CERAMIC 33PF J 50V
		(DIODES)
D9501	⚠ 407 008 5707	DIODE MA152K
D9502	407 004 5602	DIODE DSA015
D9503	⚠ 407 004 2601	DIODE DFB05G
D9504	⚠ 407 008 5707	DIODE MA152K
		(INTEGRATED CIRCUITS)
IC9501	409 000 6409	IC AN2510S
		(COILS)
L9501	⚠ 4–253F–80200	HF CHOKE 100UH
L9502	⚠ 4–274F–00200	WIDTH COIL TRANS
L9503	4–253F–80520	HF CHOKE 39UH
		(TRANSISTORS)
Q9501	405 025 3300	TR 2SD814-R
Q9502	⚠ 405 025 1108	TR 2SD763
		(RESISTORS)
R9501	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9502	401 038 7700	MT-GLAZE 5.6K OHM J 1/10W
R9503	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R9504	401 038 9308	MT-GLAZE 68K OHM J 1/10W
R9505	401 037 7800	MT-GLAZE 150 OHM J 1/10W
R9506	401 037 5400	MT-GLAZE 1K OHM J 1/10W
R9507	401 038 5607	MT-GLAZE 4.7 OHM K 1/10W
R9508	401 037 7800	MT-GLAZE 150 OHM J 1/10W
R9509	401 038 9209	MT-GLAZE 6.8K OHM J 1/10W
R9510	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R9511	401 037 9200	MT-GLAZE 1.8K OHM J 1/10W
R9513	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R9514	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9515	401 037 9309	MT-GLAZE 18K OHM J 1/10W
R9516	401 037 6704	MT-GLAZE 1.2K OHM J 1/10W
R9517	401 038 3702	MT-GLAZE 33K OHM J 1/10W
R9518	401 037 5806	MT-GLAZE 1M OHM J 1/10W
R9519	⚠ 401 037 6902	MT-GLAZE 120K OHM J 1/10W
R9520	401 038 0701	MT-GLAZE 2.2K OHM J 1/10W
R9521	⚠ 401 037 5707	MT-GLAZE 100K OHM J 1/10W
R9522	401 037 8203	MT-GLAZE 1.5M OHM J 1/10W
R9523	401 018 6808	CARBON 3.3M OHM J 1/4W
		(SEMI VARIABLE RESISTORS)
SVR9501	4–222V–20210	4.7K OHM
SVR9502	4–222V–20202	220 OHM
SVR9503	4–222V–20206	1K OHM

Location	Part No.	Description
SVR9504	4-222V-20222	470K OHM
SVR9505	4-222V-20225	1.5M OHM
		(TRANSFORMERS)
T9501	⚠ 4-275F-00200	FLY BACK TRANS
		(MISCELLANEOUS)
CN9503	⚠ 4-243F-30700	CORD

TC-1 BOARD

Location	Part No.	Description
		(RESISTORS)
R9291	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
or	401 037 7909	MT-GLAZE 1.5K OHM J 1/10W
R9292	401 037 5608	MT-GLAZE 10K OHM J 1/10W
or	401 037 5608	MT-GLAZE 10K OHM J 1/10W
R9293	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
or	401 038 3603	MT-GLAZE 3.3K OHM J 1/10W
R9294	401 037 5707	MT-GLAZE 100K OHM J 1/10W
or	401 037 5707	MT-GLAZE 100K OHM J 1/10W
R9296	401 037 6803	MT-GLAZE 12K OHM J 1/10W
or	401 037 6803	MT-GLAZE 12K OHM J 1/10W
R9297	401 038 9001	MT-GLAZE 680 OHM J 1/10W
or	401 038 9001	MT-GLAZE 680 OHM J 1/10W
R9298	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
or	401 037 5004	MT-GLAZE 0 OHM Z 1/10W
R9299	401 038 7809	MT-GLAZE 56K OHM J 1/10W
or	401 038 7809	MT-GLAZE 56K OHM J 1/10W
		(SEMI VARIABLE RESISTORS)
SVR9293	4-222F-60918	SEMI VR 100K OHM
or	4-222F-60918	SEMI VR 100K OHM
SVR9295	4-222F-60914	SEMI VR 22K OHM
or	4-222F-60914	SEMI VR 22K OHM
SVR9296	4-222F-60908	SEMI VR 2.2K OHM
or	4-222F-60908	SEMI VR 2.2K OHM
SVR9297	4-222F-60906	SEMI VR 1K OHM
or	4-222F-60906	SEMI VR 1K OHM

TC-3 BOARD

Location	Part No.	Description
		(DIODES)
D9610	407 050 6202	ZENER DIODE GZA6.2Y

SANYO Electric Co., Ltd.
OSAKA, JAPAN
July/'87/1490/NS
Printed in Japan

SCHEMATIC DIAGRAM
&
PRINTED WIRING BOARD

MODEL VM-D1P

CONTENTS

OVERALL WIRING DIAGRAM 🅐
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P.C.B. CA-2 🅒
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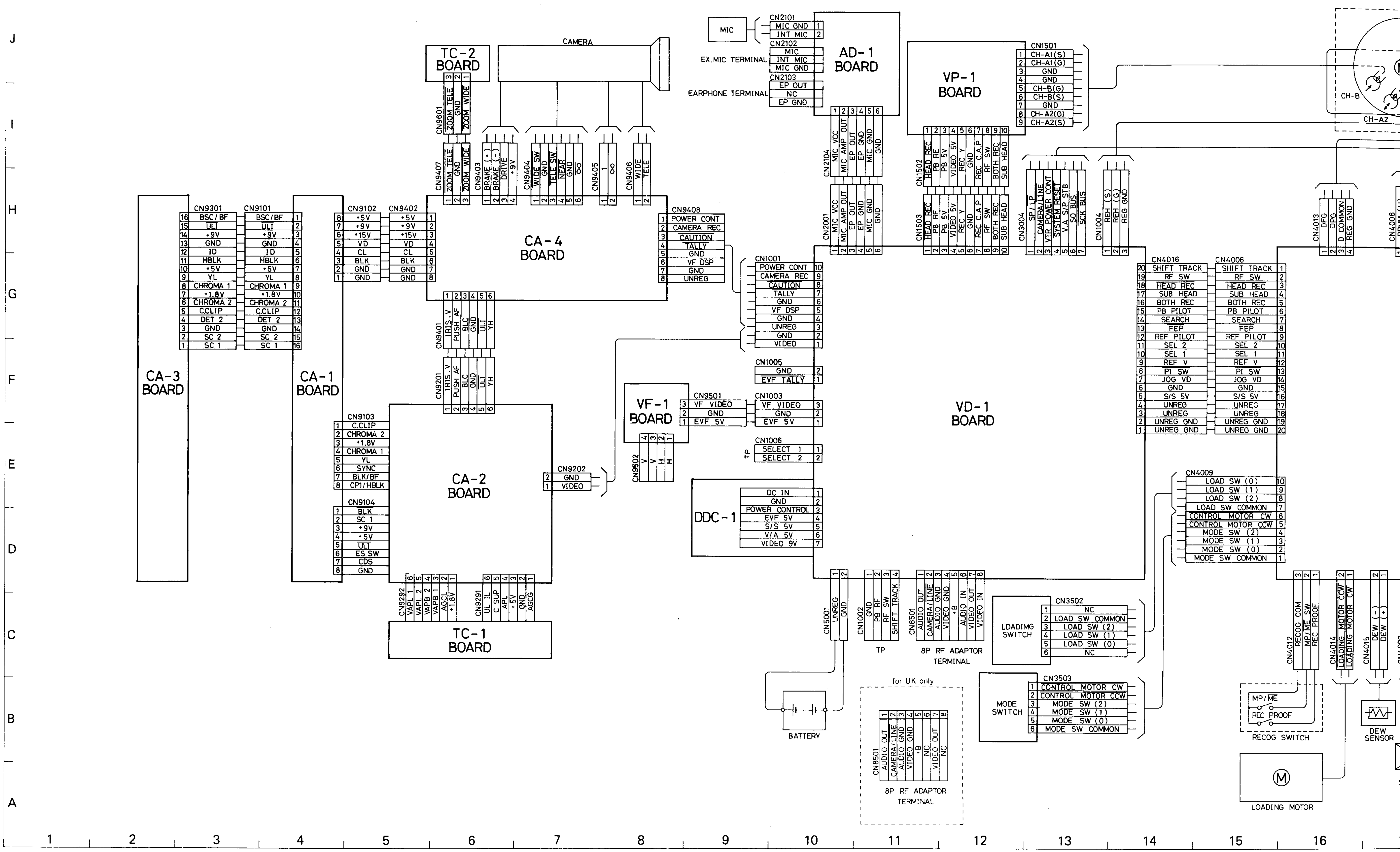
P.C.B. CA-4 🅔
P.C.B. VF-1
P.C.B. TC-1
P.C.B. TC-2 🅕
P.C.B. TC-3
P.C.B. TB-1
P.C.B. TB-2
P.C.B. TB-3 🅖
P.C.B. OT-1
P.C.B. VD-1 🅗 🅘
P.C.B. AD-1
P.C.B. VP-1 🅙
P.C.B. SV-1 🅚
P.C.B. SV-2
P.C.B. SV-3 🅛
P.C.B. SY-1 🅜
SEMICONDUCTORS 🅝

- ——: +B bus.
- Voltage values: Relative to ground, measured with a DC digital multimeter
- The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.
- All resistors are in ohms.
- All capacitors are in μF (p: pF).
- All coils are in mH (μ: μH).
- Cautions

Pattern face side (Solder Side)	: Parts on the pattern face side seen from the pattern face are indicated.
Parts face side (Component Side)	: Parts on the parts face side seen from the pattern face are indicated.

OVERALL WIRING DIAGRAM


CA-3 BOARD
CA-1 BOARD
CA-2 BOARD
CA-4 BOARD
TC-1 BOARD
TC-2 BOARD
CAMERA
VF-1 BOARD
DDC-1
AD-1 BOARD
VP-1 BOARD
VD-1 BOARD
MIC
EX.MIC TERMINAL
EARPHONE TERMINAL
CN9301
CN9101
CN9102
CN9402
CN9408
CN9103
CN9104
CN9202
CN9292
CN9291
CN9201
CN9401
CN9407
CN9601
CN9403
CN9404
CN9405
CN9406
CN9501
CN9502
CN2101
CN2102
CN2103
CN2104
CN2001
CN1501
CN1502
CN1503
CN3004
CN1004
CN1001
CN1005
CN1003
CN1006
CN4016
CN4006
CN4009
CN4013
CN4008
CN4012
CN4014
CN4015
CN5001
CN1002
CN8501
CN3502
CN3503
BSC/BF
ULT
+9V
GND
ID
HBLK
+5V
YL
CHROMA 1
+1.8V
CHROMA 2
C.CLIP
DET 2
SC 2
SC 1
+15V
VD
CL
BLK
SYNC
BLK/BF
CP1/HBLK
ES.SW
CDS
VAPL 1
VAPL 2
VAPB 2
VAPB 1
AGCL
UL IL
C SUP
APL
AGCG
IRIS.V
PUSH AF
BLC
YH
ZOOM TELE
ZOOM WIDE
BRAKE (+)
BRAKE (-)
DRIVE
WIDE SW
TELE SW
NEAR
∞
WIDE
TELE
POWER CONT
CAMERA REC
CAUTION
TALLY
VF DSP
UNREG
VIDEO
EVF TALLY
VF VIDEO
EVF 5V
V
H
SELECT 1
SELECT 2
TP
DC IN
POWER CONTROL
S/S 5V
V/A 5V
VIDEO 9V
MIC GND
INT MIC
MIC
EP OUT
NC
EP GND
MIC VCC
MIC AMP OUT
CH-A1(S)
CH-A1(G)
CH-B(G)
CH-B(S)
CH-A2(G)
CH-A2(S)
CH-B
CH-A2
HEAD REC
PB RF
PB 5V
VIDEO 5V
REC Y
REC C.A.P.
RF SW
BOTH REC
SUB HEAD
SP/LP
CAMERA/LINE
VTR POWER CONT
SYSTEM RESET
V.A S/P STB
SO BUS
SCK BUS
REH (S)
REH (G)
REG GND
SHIFT TRACK
SUB HEAD
PB PILOT
SEARCH
FEP
REF PILOT
SEL 2
SEL 1
REF V
PI SW
JOG VD
UNREG GND
LOAD SW (0)
LOAD SW (1)
LOAD SW (2)
LOAD SW COMMON
CONTROL MOTOR CW
CONTROL MOTOR CCW
MODE SW (2)
MODE SW (1)
MODE SW (0)
MODE SW COMMON
DFG
DPG
D COMMON
REG GND
RECOG COM
MP/ME SW
REC PROOF
LOADING MOTOR CCW
LOADING MOTOR CW
DEW (-)
DEW (+)
AUDIO OUT
AUDIO GND
VIDEO GND
+B
AUDIO IN
VIDEO OUT
VIDEO IN
BATTERY
TP
8P RF ADAPTOR TERMINAL
for UK only
LDADIMG SWITCH
MODE SWITCH
MP/ME
REC PROOF
RECOG SWITCH
DEW SENSOR
M
LOADING MOTOR
K
J
I
H
G
F
E
D
C
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A
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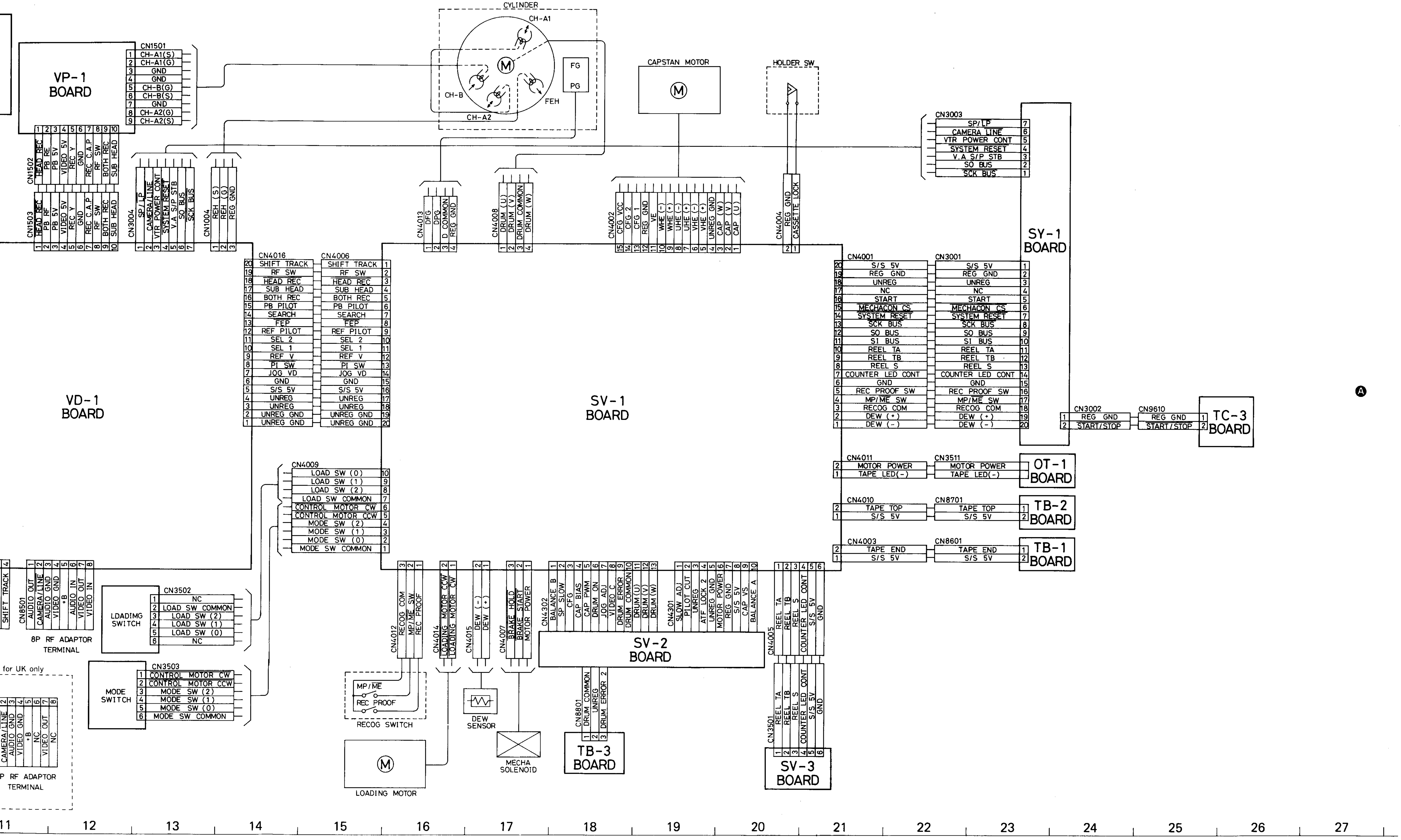
OVERALL WIRING DIAGRAM



CYLINDER
CH-A1
CH-B
CH-A2
FEH
FG
PG
CAPSTAN MOTOR
HOLDER SW
VP-1 BOARD
CN1501
1 CH-A1(S)
2 CH-A1(G)
3 GND
4 GND
5 CH-B(G)
6 CH-B(S)
7 GND
8 CH-A2(G)
9 CH-A2(S)
CN1502
1 HEAD REC
2 PB RE
3 PB 5V
4 VIDEO 5V
5 REC Y
6 GND
7 REC C.A.P
8 RF SW
9 BOTH REC
10 SUB HEAD
CN1503
1 HEAD REC
2 PB RF
3 PB 5V
4 VIDEO 5V
5 REC Y
6 GND
7 REC C.A.P
8 RF SW
9 BOTH REC
10 SUB HEAD
CN3004
1 SP/LP
2 CAMERA/LINE
3 VTR POWER CONT
4 SYSTEM RESET
5 V.A S/P STB
6 SO BUS
7 SCK BUS
CN1004
1 REH (S)
2 REH (G)
3 REG GND
CN4013
1 DFG
2 DPG
3 D COMMON
4 REG GND
CN4008
1 DRUM (U)
2 DRUM (V)
3 DRUM COMMON
4 DRUM (W)
CN4002
15 CFG VCC
14 CFG 2
13 CFG 1
12 REG GND
11 VE
10 WHE (-)
9 WHE (+)
8 UHE (-)
7 UHE (+)
6 VHE (-)
5 VHE (+)
4 UNREG GND
3 CAP (W)
2 CAP (V)
1 CAP (U)
CN4004
2 REG GND
1 CASSETTE LOCK
CN3003
7 SP/LP
6 CAMERA LINE
5 VTR POWER CONT
4 SYSTEM RESET
3 V.A S/P STB
2 SO BUS
1 SCK BUS
SY-1 BOARD
VD-1 BOARD
SV-1 BOARD
CN4016
20 SHIFT TRACK
19 RF SW
18 HEAD REC
17 SUB HEAD
16 BOTH REC
15 PB PILOT
14 SEARCH
13 FEP
12 REF PILOT
11 SEL 2
10 SEL 1
9 REF V
8 PI SW
7 JOG VD
6 GND
5 S/S 5V
4 UNREG
3 UNREG
2 UNREG GND
1 UNREG GND
CN4006
1 SHIFT TRACK
2 RF SW
3 HEAD REC
4 SUB HEAD
5 BOTH REC
6 PB PILOT
7 SEARCH
8 FEP
9 REF PILOT
10 SEL 2
11 SEL 1
12 REF V
13 PI SW
14 JOG VD
15 GND
16 S/S 5V
17 UNREG
18 UNREG
19 UNREG GND
20 UNREG GND
CN4001
20 S/S 5V
19 REG GND
18 UNREG
17 NC
16 START
15 MECHACON CS
14 SYSTEM RESET
13 SCK BUS
12 SO BUS
11 SI BUS
10 REEL TA
9 REEL TB
8 REEL S
7 COUNTER LED CONT
6 GND
5 REC PROOF SW
4 MP/ME SW
3 RECOG COM
2 DEW (+)
1 DEW (-)
CN3001
1 S/S 5V
2 REG GND
3 UNREG
4 NC
5 START
6 MECHACON CS
7 SYSTEM RESET
8 SCK BUS
9 SO BUS
10 SI BUS
11 REEL TA
12 REEL TB
13 REEL S
14 COUNTER LED CONT
15 GND
16 REC PROOF SW
17 MP/ME SW
18 RECOG COM
19 DEW (+)
20 DEW (-)
CN3002
1 REG GND
2 START/STOP
CN9610
REG GND 1
START/STOP 2
TC-3 BOARD
A
CN4011
2 MOTOR POWER
1 TAPE LED(-)
CN3511
MOTOR POWER
TAPE LED(-)
OT-1 BOARD
CN4010
2 TAPE TOP
1 S/S 5V
CN8701
TAPE TOP 1
S/S 5V 2
TB-2 BOARD
CN4003
2 TAPE END
1 S/S 5V
CN8601
TAPE END 1
S/S 5V 2
TB-1 BOARD
CN4009
10 LOAD SW (0)
9 LOAD SW (1)
8 LOAD SW (2)
7 LOAD SW COMMON
6 CONTROL MOTOR CW
5 CONTROL MOTOR CCW
4 MODE SW (2)
3 MODE SW (1)
2 MODE SW (0)
1 MODE SW COMMON
4 SHIFT TRACK
CN8501
1 AUDIO OUT
2 CAMERA/LINE
3 VIDEO GND
4 VIDEO GND
5 +B
6 AUDIO IN
7 VIDEO OUT
8 VIDEO IN
8P RF ADAPTOR TERMINAL
LOADIMG SWITCH
CN3502
1 NC
2 LOAD SW COMMON
3 LOAD SW (2)
4 LOAD SW (1)
5 LOAD SW (0)
6 NC
for UK only
CAMERA/LINE
AUDIO GND
VIDEO GND
+B
NC
VIDEO OUT
NC
P RF ADAPTOR TERMINAL
MODE SWITCH
CN3503
1 CONTROL MOTOR CW
2 CONTROL MOTOR CCW
3 MODE SW (2)
4 MODE SW (1)
5 MODE SW (0)
6 MODE SW COMMON
CN4012
3 RECOG COM
2 MP/ME SW
1 REC PROOF
MP/ME
REC PROOF
RECOG SWITCH
LOADING MOTOR
CN4014
2 LOADING MOTOR CCW
1 LOADING MOTOR CW
CN4015
2 DEW (-)
1 DEW (+)
DEW SENSOR
CN4007
3 BRAKE HOLD
2 BRAKE START
1 MOTOR POWER
MECHA SOLENOID
CN4302
1 BALANCE B
2 SP SLOW
3 CFG
4 CAP BIAS
5 CAP PWM
6 DRUM ON
7 JOG ADJ
8 VIDEO C
9 DRUM ERROR
10 DRUM COMMON
11 DRUM (U)
12 DRUM (V)
13 DRUM (W)
CN4301
1 SLOW ADJ
2 PILOT CUT
3 UNREG
4 ATF LOCK 2
5 UNREG GND
6 MOTOR POWER
7 REG GND
8 S/S 5V
9 CAP VS
10 BALANCE A
SV-2 BOARD
CN8801
1 DRUM COMMON
2 UNREG
3 DRUM ERROR 2
TB-3 BOARD
CN4005
1 REEL TA
2 REEL TB
3 REEL S
4 COUNTER LED CONT
5 S/S 5V
6 GND
CN3501
1 REEL TA
2 REEL TB
3 REEL S
4 COUNTER LED CONT
5 S/S 5V
6 GND
SV-3 BOARD
11
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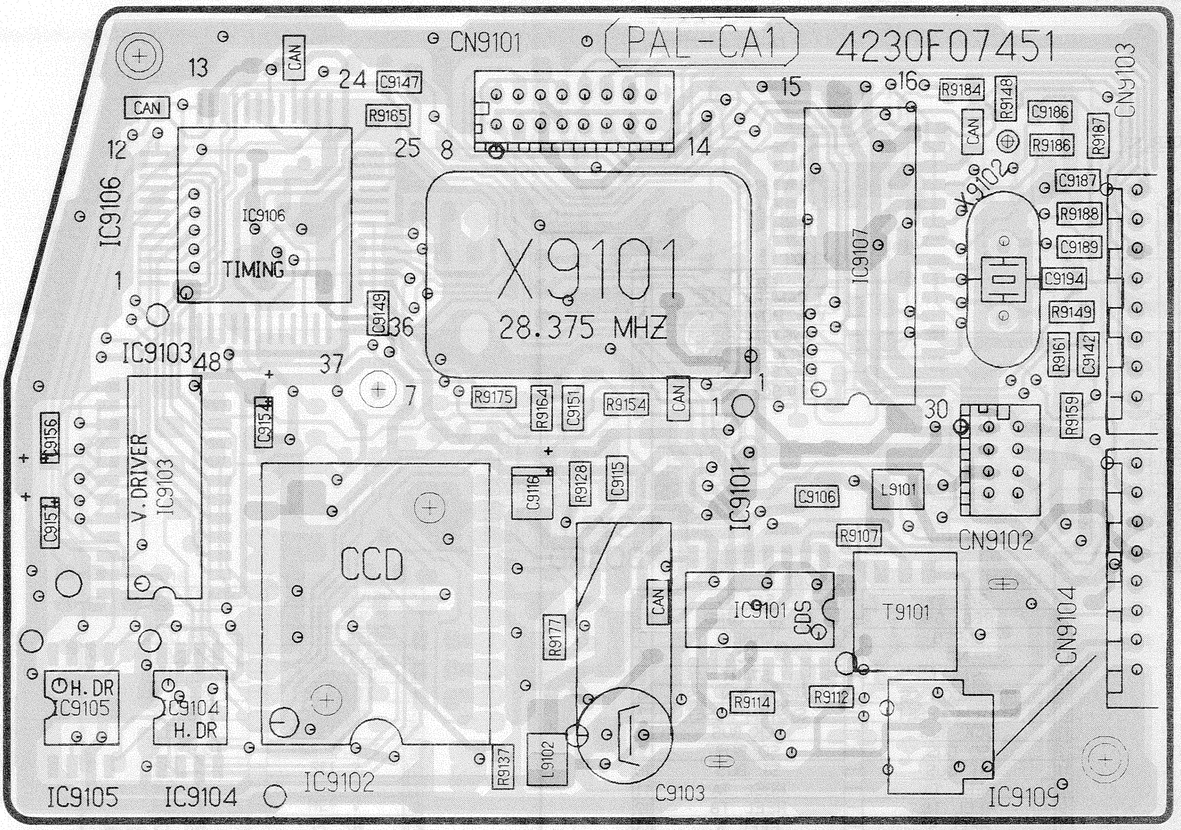
CA-1 BOARD SIDE A


K
J
I
H
G
F
PAL-CA1
4230F07451
CN9101
CN9102
CN9103
CN9104
X9101
28.375 MHZ
CCD
IC9101
IC9102
IC9103
V.DRIVER
IC9104
H.DR
IC9105
H.DR
IC9106
TIMING
IC9107
IC9109
T9101
X9102
L9101
L9102
CAN
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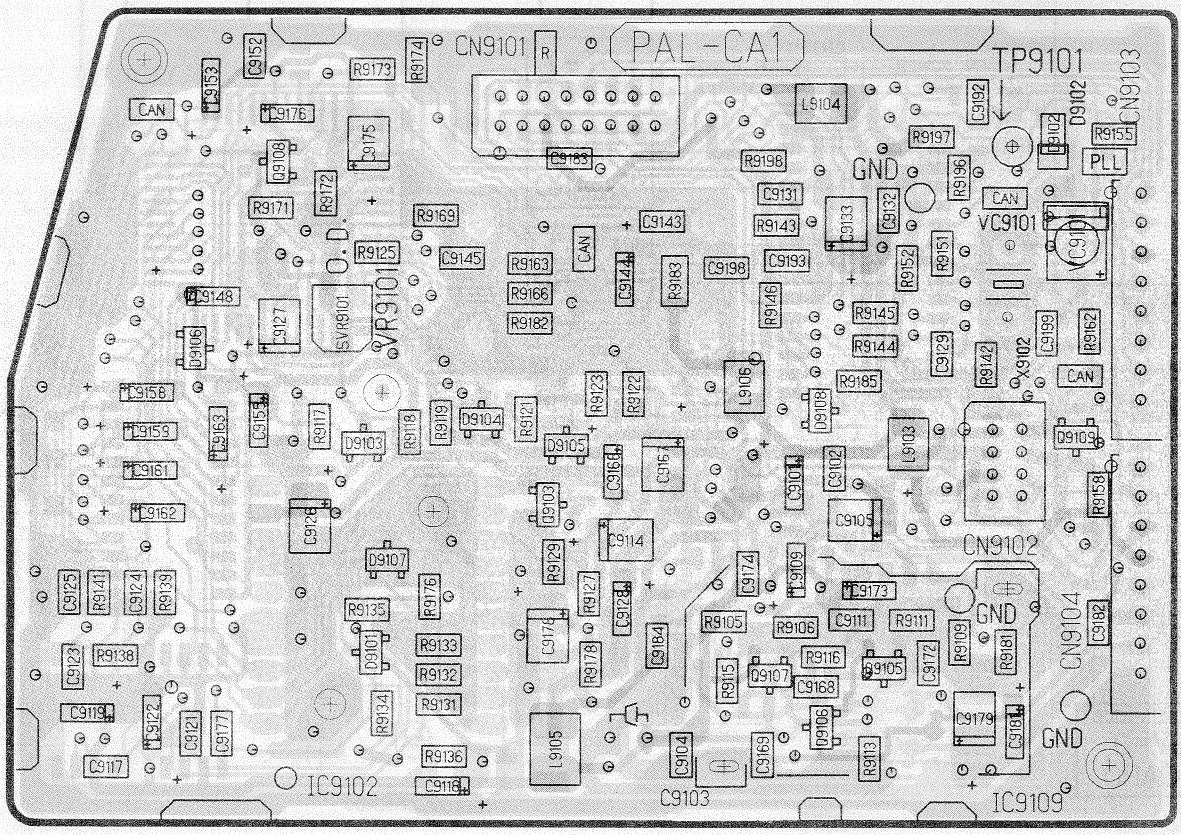
B

CA-1 BOARD SIDE B


E
D
C
B
A
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6
7
PAL-CA1
CN9101
R
TP9101
D9102
CN9103
PLL
GND
VC9101
CN9102
CN9104
IC9102
IC9109
VR9101
SVR9101
O.D.
L9104
L9105
L9106
L9103
X9102
CAN
D9101
D9103
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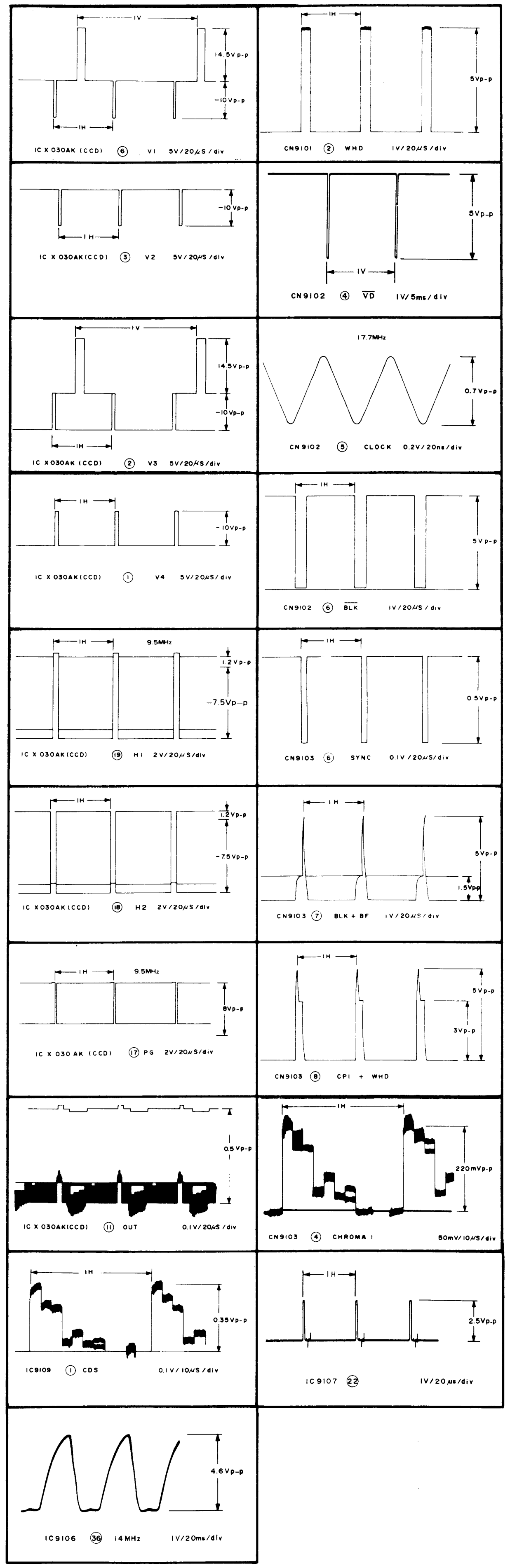
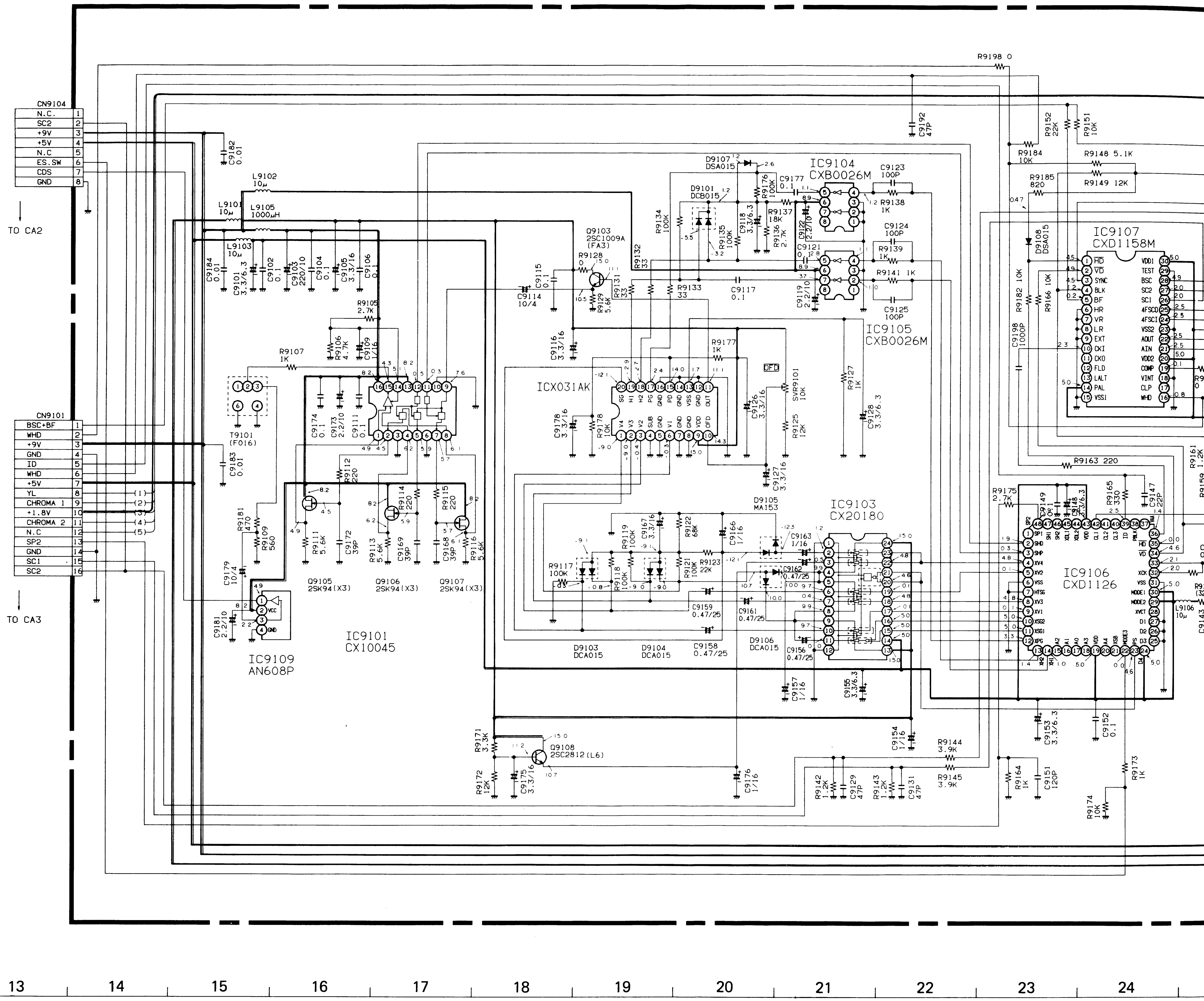
R9185
R9196
R9197
R9198

CA-1 BOARD (CAMERA)



CA-1 CIRCUIT


CN9104
N.C.
SC2
+9V
+5V
N.C
ES.SW
CDS
GND
TO CA2
CN9101
BSC+BF
WHD
+9V
GND
ID
WHD
+5V
YL
CHROMA 1
+1.8V
CHROMA 2
N.C
SP2
GND
SC1
SC2
TO CA3
L9101 10µ
L9102 10µ
L9103 10µ
L9105 1000µH
C9182 0.01
C9184 0.01
C9101 3.3/6.3
C9102 0.1
C9103 220/10
C9104 0.1
C9105 3.3/16
C9106 0.1
R9105 2.7K
R9106 4.7K
C9109 1/16
R9107 1K
T9101 (F016)
C9183 0.01
C9174 0.1
C9173 2.2/10
C9111 0.1
R9112 220
R9114 220
R9115 220
R9181 470
R9109 560
R9111 5.6K
C9172 39P
R9113 5.6K
C9169 39P
C9168 39P
R9116 5.6K
Q9105 2SK94(X3)
Q9106 2SK94(X3)
Q9107 2SK94(X3)
C9179 10/4
C9181 2.2/10
IC9109 AN608P
IC9101 CX10045
Q9103 2SC1009A (FA3)
R9128 0
R9129 5.6K
C9114 10/4
C9115 0.1
C9116 3.3/16
R9132 33
R9133 33
R9134 100K
D9107 DSA015
D9101 DCB015
R9135 100K
R9176 100K
R9137 18K
R9136 2.7K
C9118 3.3/6.3
C9177 0.1
C9122 2.2/10
C9121 0.1
C9119 2.2/10
C9117 0.1
IC9104 CXB0026M
C9123 100P
R9138 1K
C9124 100P
R9139 1K
R9141 1K
C9125 100P
IC9105 CXB0026M
ICX031AK
C9178 3.3/16
R9178 0K
R9177 1K
C9126 3.3/16
SVR9101 10K
R9125 12K
R9127 1K
C9128 3.3/6.3
C9127 3.3/16
OFD
IC9103 CX20180
D9105 MA153
C9163 1/16
C9162 0.47/25
C9161 0.47/25
C9159 0.47/25
C9158 0.47/25
C9156 0.47/25
C9157 1/16
C9155 3.3/6.3
C9167 3.3/16
C9166 1/16
R9119 100K
R9122 68K
R9117 100K
R9118 100K
R9121 100K
R9123 22K
D9103 DCA015
D9104 DCA015
D9106 DCA015
R9171 3.3K
R9172 12K
C9175 3.3/16
Q9108 2SC2812(L6)
C9176 1/16
C9154 1/16
R9142 1.2K
C9129 47P
R9143 1.2K
C9131 47P
R9144 3.9K
R9145 3.9K
R9198 0
C9192 47P
R9152 22K
R9151 10K
R9184 10K
R9148 5.1K
R9185 820
R9149 12K
D9108 DSA015
IC9107 CXD1158M
R9182 10K
R9166 10K
C9198 1000P
R9163 220
R9175 2.7K
R9165 330
C9147 22P
IC9106 CXD1126
L9106 10µ
C9153 3.3/6.3
C9152 0.1
R9164 1K
C9151 120P
R9173 1K
R9174 10K
R9161 1.2K
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10
11
12
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19
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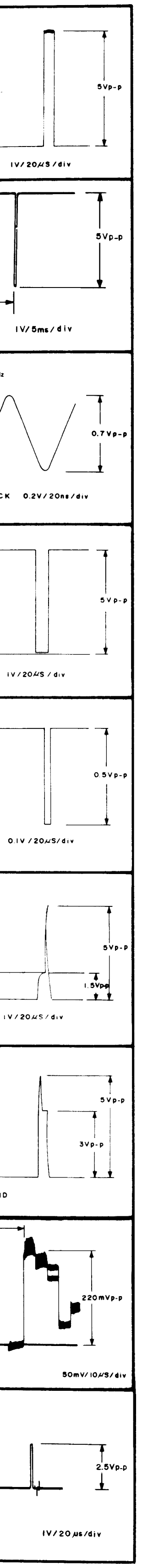
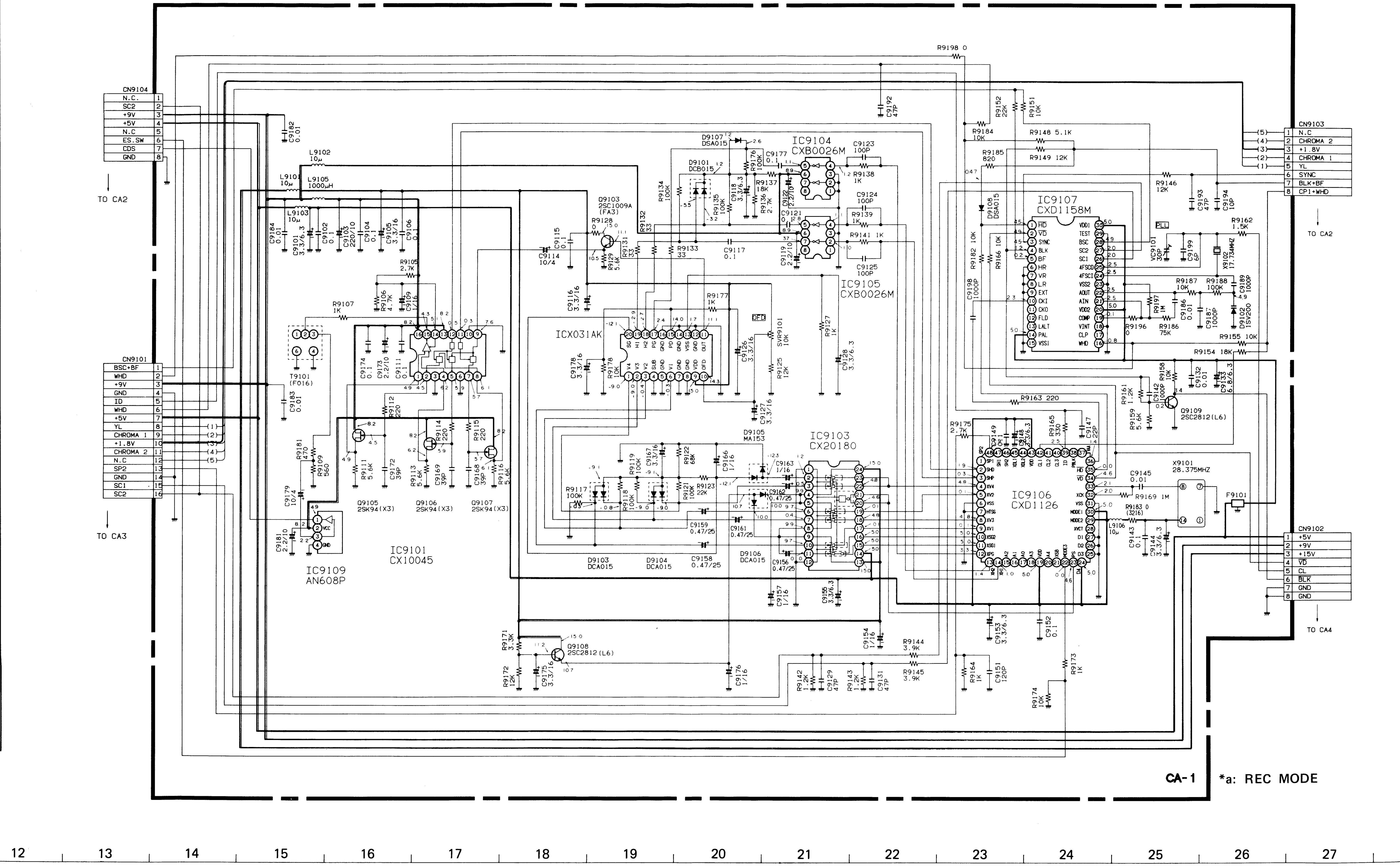
23
24

CA-1 CIRCUIT





CN9104
N.C. 1
SC2 2
+9V 3
+5V 4
N.C 5
ES.SW 6
CDS 7
GND 8
TO CA2
CN9101
BSC+BF 1
WHD 2
+9V 3
GND 4
ID 5
WHD 6
+5V 7
YL 8
CHROMA 1 9
+1.8V 10
CHROMA 2 11
N.C 12
SP2 13
GND 14
SC1 15
SC2 16
TO CA3
CN9103
N.C 1
CHROMA 2 2
+1.8V 3
CHROMA 1 4
YL 5
SYNC 6
BLK+BF 7
CP1+WHD 8
TO CA2
CN9102
+5V 1
+9V 2
+15V 3
VD 4
CL 5
BLK 6
GND 7
GND 8
TO CA4
IC9101
CX10045
IC9109
AN608P
ICX031AK
IC9104
CXB0026M
IC9105
CXB0026M
IC9103
CX20180
IC9107
CXD1158M
IC9106
CXD1126
Q9103
2SC1009A
(FA3)
Q9105
2SK94(X3)
Q9106
2SK94(X3)
Q9107
2SK94(X3)
Q9108
2SC2812(L6)
Q9109
2SC2812(L6)
T9101
(F016)
X9101
28.375MHZ
X9102
17.734MHZ
F9101
D9101
DCB015
D9107
DSA015
D9108
DSA015
D9102
1SV200
D9103
DCA015
D9104
DCA015
D9105
MA153
D9106
DCA015
L9101
10μ
L9102
10μ
L9103
10μ
L9105
1000μH
L9106
10μ
VC9101
30P
SVR9101
10K
R9198 0
R9184
10K
R9185
820
R9148 5.1K
R9149 12K
R9146
12K
R9162
1.5K
R9107
1K
R9105
2.7K
R9128
0
R9163 220
R9175
2.7K
R9169 1M
R9183 0
(3216)
R9144
3.9K
R9145
3.9K
R9154 18K
R9155 10K
C9192
47P
C9182
0.01
C9183
0.01
C9145
0.01
HD
VD
SYNC
BLK
BF
HR
VR
LR
EXT
CKI
CKO
FLD
LALT
PAL
VSS1
VDD1
TEST
BSC
SC2
SC1
4FSCO
4FSCI
VSS2
AOUT
AIN
VDD2
COMP
VINT
CLP
WHD
PLL
OFD
12
13
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27
CA-1

*a: REC MODE

K

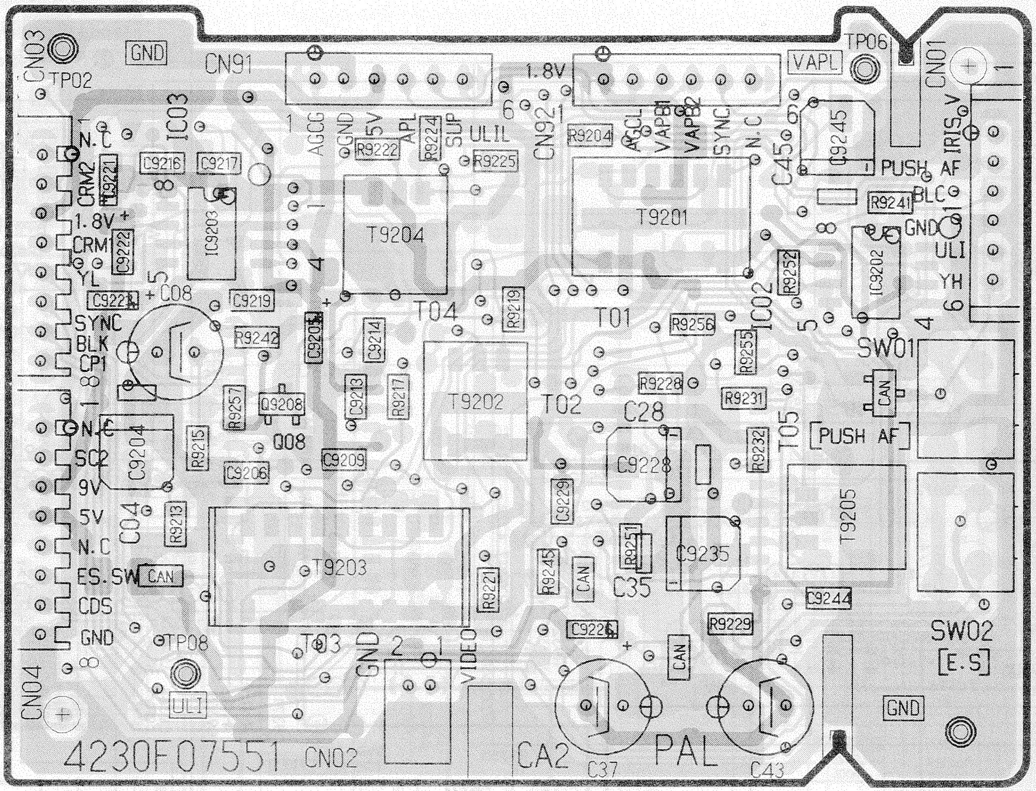
CA-2 BOARD SIDE A

J

I

H

G



CN03
TP02
GND
CN91
IC03
N.C
CRM2
1.8V
CRM1
YL
SYNC
BLK
CP1
SC2
9V
5V
ES.SW
CDS
C04
CAN
C08
C9216
C9217
R9221
C9222
C9223
C9219
R9242
R9257
Q9208
Q08
C9204
R9215
R9213
C9206
C9205
C9214
C9213
R9217
C9209
T9204
T04
T9203
T03
TP08
ULI
CN04
4230F07551
CN02
AGCG
GND
5V
APL
SUP
ULIL
R9222
R9224
R9225
CN92
1.8V
R9219
T9202
T02
T01
VIDEO
R9221
R9245
C9229
C9226
C35
C37
CA2
PAL
R9204
AGCL
VAPB1
VAPB2
SYNC
N.C
C45
T9201
IC02
R9256
R9255
R9228
C28
R9231
R9232
T05
R9251
C9228
C9235
R9229
C43
VAPL
TP06
CN01
C9245
PUSH
AF
R9241
BLC
GND
ULI
IRIS_V
YH
R9252
IC9202
SW01
PUSH AF
T9205
C9244
SW02
[E.S]
GND

F

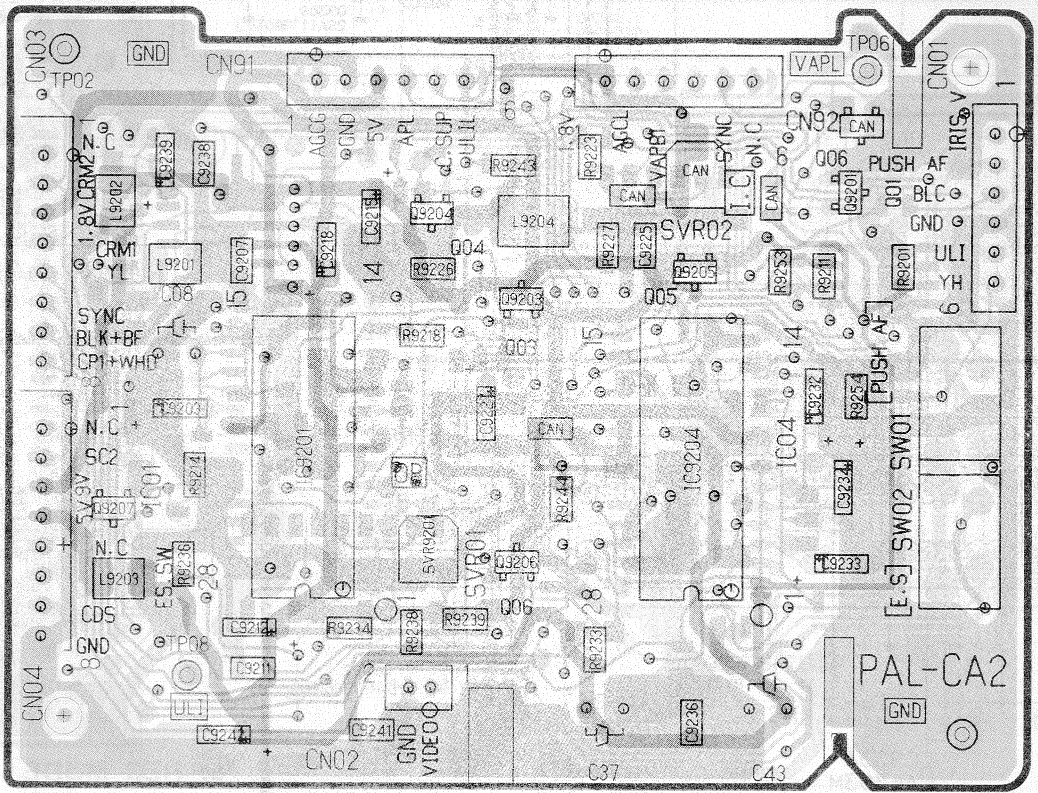
CA-2 BOARD SIDE B

E

D

C

B

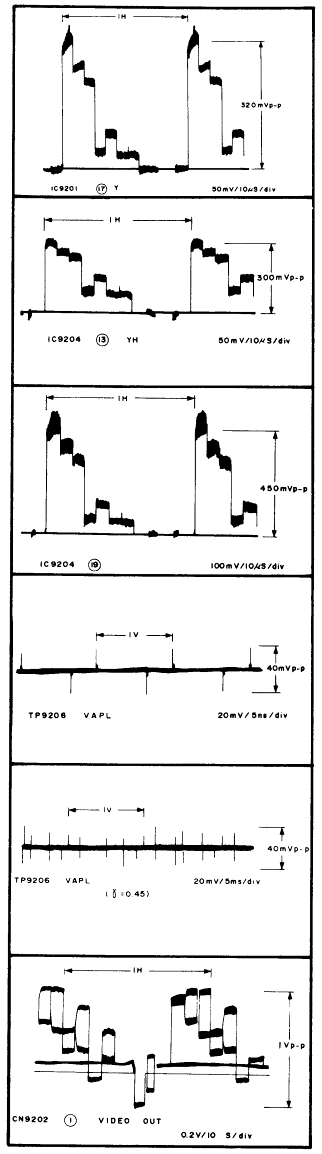


CN03
TP02
GND
CN91
N.C
CRM2
1.8V
L9202
C9239
C9238
CRM1
YL
L9201
C08
C9207
SYNC
BLK+BF
CP1+WHD
N.C
C9203
SC2
5V
9V
R9214
IC01
Q9207
N.C
L9203
ES.SW
R9236
CDS
GND
TP08
ULI
CN04
C9242
CN02
C9212
C9211
C9241
GND
VIDEO
R9234
R9238
AGCG
GND
5V
APL
C.SUP
ULIL
R9218
C9215
Q9204
Q04
R9226
IC9201
R9218
Q03
Q9203
C9221
SVR9201
SVR01
Q9206
Q06
R9239
R9243
L9204
R9223
1.8V
AGCL
VAPB1
CAN
SYNC
N.C
I.C
R9227
C9225
SVR02
Q9205
Q05
R9244
IC9204
IC04
R9233
C9236
C37
C43
VAPL
TP06
CN01
CN92
CAN
Q06
Q9201
Q01
PUSH AF
BLC
GND
ULI
IRIS_V
YH
R9253
R9211
R9201
C9232
R9254
PUSH AF
C9234
SW01
SW02
[E.S]
C9233
PAL-CA2
GND

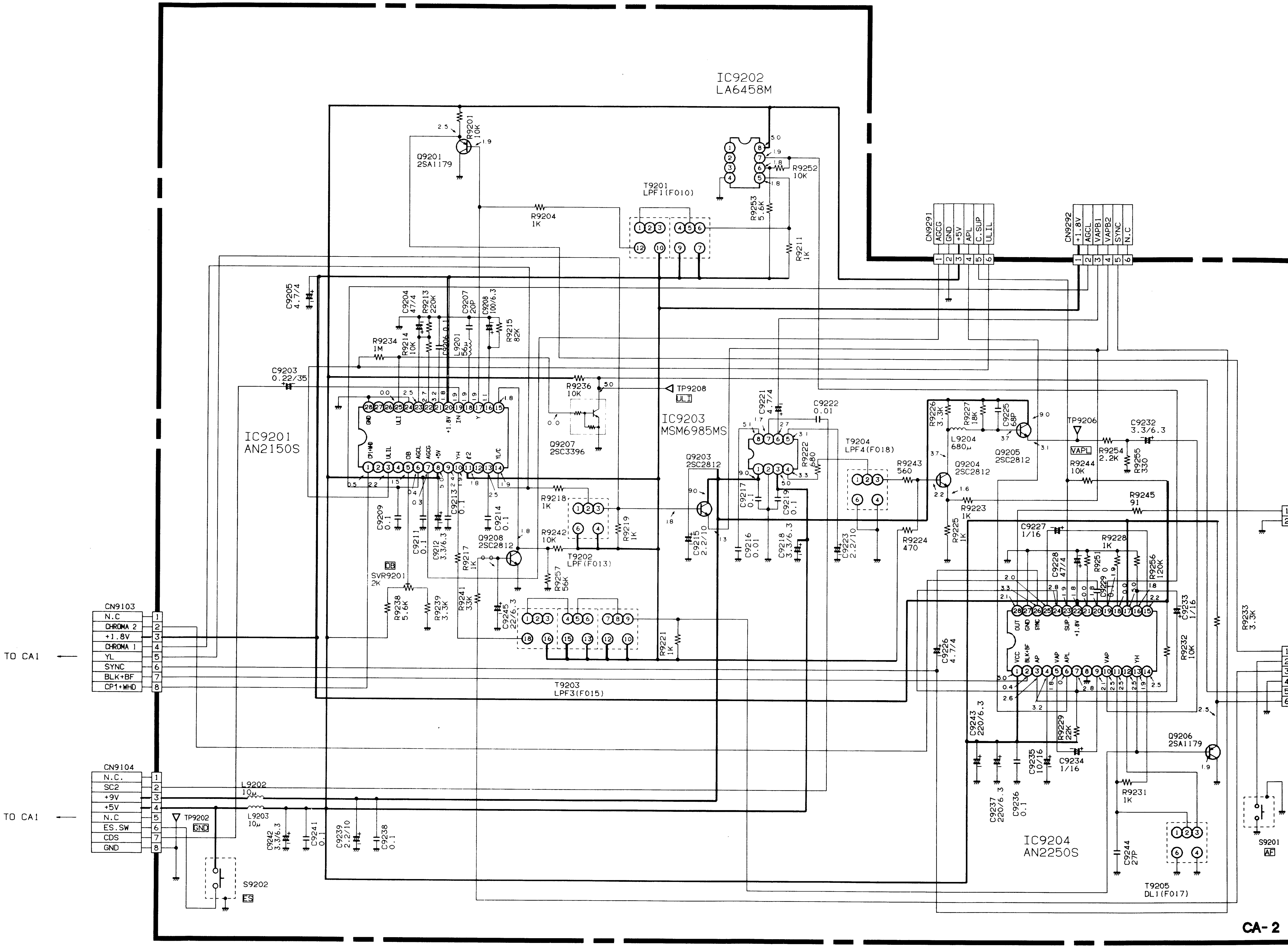
A

1 2 3 4 5 6 7 8

CA-2 BOARD (CAMERA)



CA-2 CIRCUIT


IC9202
LA6458M
IC9201
AN2150S
IC9203
MSM6985MS
IC9204
AN2250S
Q9201
2SA1179
Q9203
2SC2812
Q9204
2SC2812
Q9205
2SC2812
Q9206
2SA1179
Q9207
2SC3396
Q9208
2SC2812
T9201
LPF1(F010)
T9202
LPF(F013)
T9203
LPF3(F015)
T9204
LPF4(F018)
T9205
DL1(F017)
CN9103
N.C
CHROMA 2
+1.8V
CHROMA 1
YL
SYNC
BLK+BF
CP1+WHD
CN9104
N.C.
SC2
+9V
+5V
N.C
ES.SW
CDS
GND
TO CA1
TO CA1
CN9291
AGCG
GND
+5V
APL
C.SUP
ULIL
CN9292
+1.8V
AGCL
VAPB1
VAPB2
SYNC
N.C
TP9202
GND
TP9206
VAPL
TP9208
ULI
S9201
AF
S9202
ES
SVR9201
2K
DB
L9201 56μ
L9202 10μ
L9203 10μ
L9204 680μ
R9201 10K
R9204 1K
R9211 1K
R9213 220K
R9214 10K
R9215 82K
R9217 1K
R9218 1K
R9219 1K
R9221 1K
R9222 680
R9223 1K
R9224 470
R9225 1K
R9226 3.3K
R9227 18K
R9228 1K
R9229 22K
R9231 1K
R9232 10K
R9233 3.3K
R9234 1M
R9236 10K
R9238 5.6K
R9239 3.3K
R9241 33K
R9242 10K
R9243 560
R9244 10K
R9245 91
R9251 0
R9252 10K
R9253 5.6K
R9254 2.2K
R9255 330
R9256 120K
R9257 56K
C9203 0.22/35
C9204 47/4
C9205 4.7/4
C9206 0.1
C9207 20P
C9208 100/6.3
C9209 0.1
C9211 0.1
C9212 3.3/6.3
C9213 0.1
C9214 0.1
C9215 2.2/10
C9216 0.01
C9217 0.1
C9218 3.3/6.3
C9219 0.1
C9221 4.7/4
C9222 0.01
C9223 2.2/10
C9225 68P
C9226 4.7/4
C9227 1/16
C9228 47/4
C9229 0.1
C9232 3.3/6.3
C9233 1/16
C9234 1/16
C9235 10/16
C9236 0.1
C9237 220/6.3
C9238 0.1
C9239 2.2/10
C9241 0.1
C9242 3.3/6.3
C9243 220/6.3
C9244 27P
C9245 22/6.3
CA-2
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14
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16
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18
19
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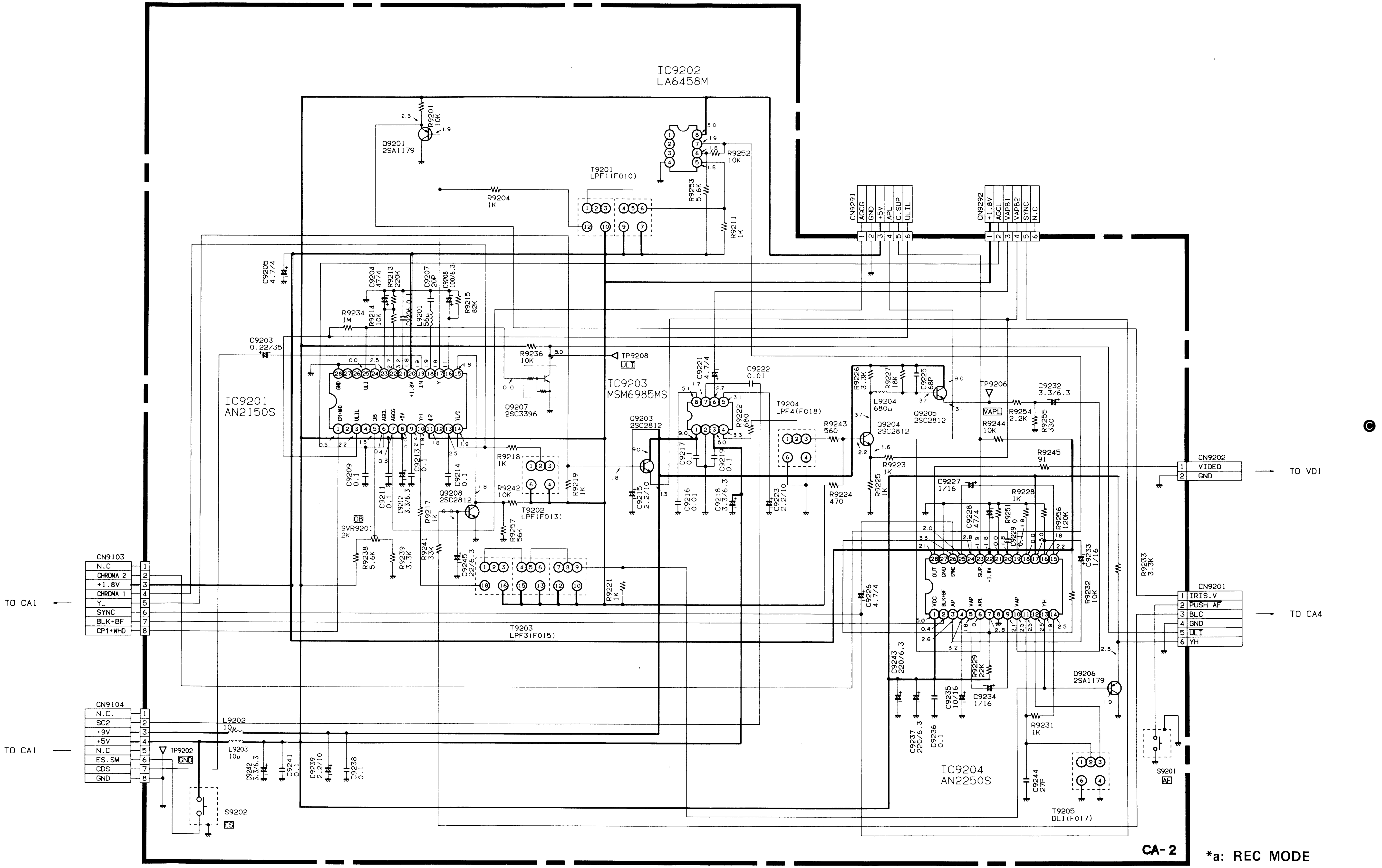
21
22
23
24
25

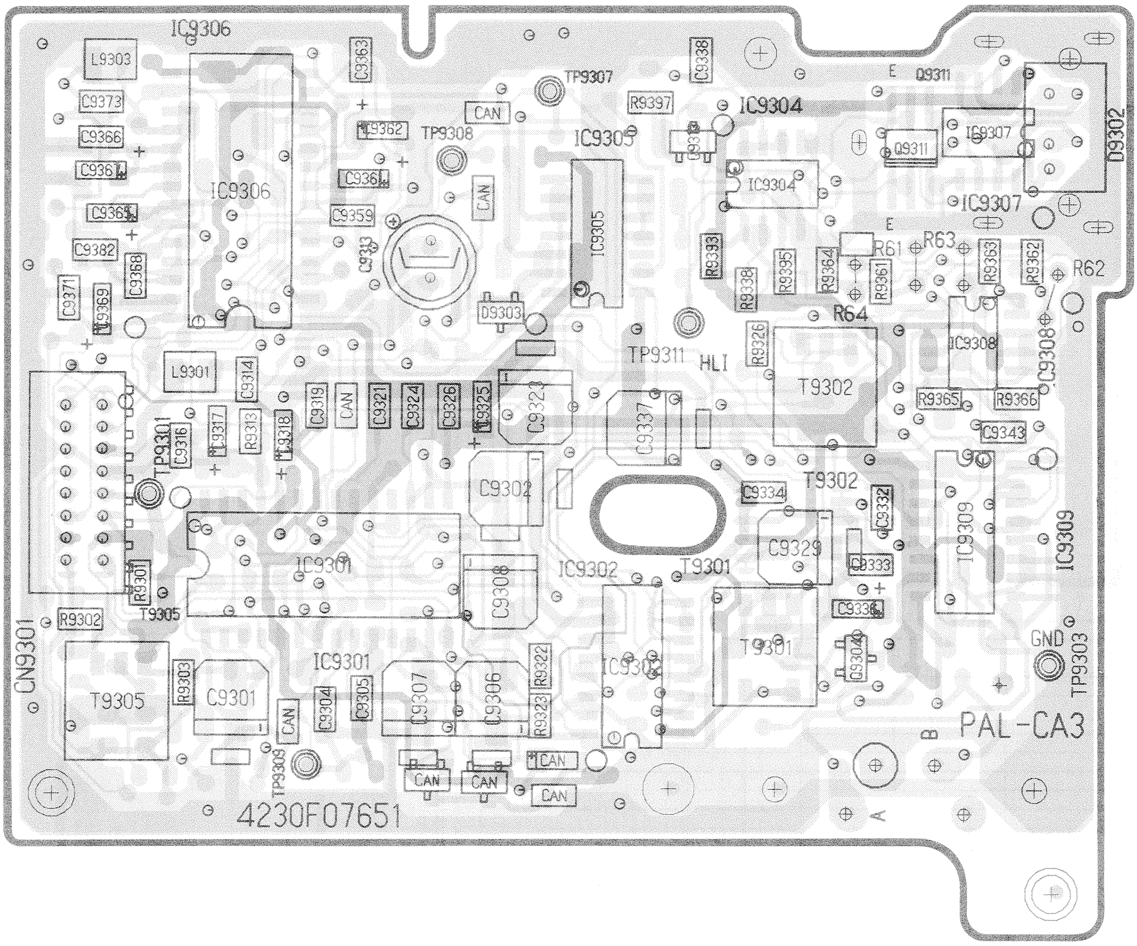
CA-2 CIRCUIT



IC9202
LA6458M
Q9201
2SA1179
R9201
10K
R9204
1K
T9201
LPF1(F010)
R9252
10K
R9253
5.6K
R9211
1K
CN9291
AGCG
GND
+5V
APL
C.SUP
ULIL
CN9292
+1.8V
AGCL
VAPB1
VAPB2
SYNC
N.C
C9205
4.7/4
C9204
47/4
R9213
220K
C9207
20P
C9208
100/6.3
R9215
82K
R9234
1M
R9214
10K
C9206
0.1
L9201
56μ
C9203
0.22/35
R9236
10K
TP9208
ULI
IC9203
MSM6985MS
Q9207
2SC3396
IC9201
AN2150S
C9221
4.7/4
C9222
0.01
R9222
680
T9204
LPF4(F018)
R9243
560
R9226
3.3K
R9227
18K
C9225
68P
L9204
680μ
Q9204
2SC2812
Q9205
2SC2812
TP9206
VAPL
R9254
2.2K
R9255
330
C9232
3.3/6.3
R9244
10K
R9245
91
CN9202
VIDEO
GND
TO VD1
Q9203
2SC2812
C9209
0.1
C9211
0.1
C9212
3.3/6.3
C9213
0.1
C9214
0.1
R9218
1K
R9219
1K
C9215
2.2/10
C9217
0.1
C9219
0.1
C9216
0.01
C9218
3.3/6.3
C9223
2.2/10
R9224
470
R9223
1K
R9225
1K
C9227
1/16
R9228
1K
C9228
47/4
C9229
R9256
120K
R9242
10K
T9202
LPF(F013)
Q9208
2SC2812
R9217
1K
R9257
56K
DB
SVR9201
2K
R9238
5.6K
R9239
3.3K
R9241
33K
C9245
22/6.3
R9221
1K
C9226
4.7/4
C9233
1/16
R9232
10K
R9233
3.3K
CN9201
IRIS.V
PUSH AF
BLC
GND
ULI
YH
TO CA4
CN9103
N.C
CHROMA 2
+1.8V
CHROMA 1
YL
SYNC
BLK+BF
CP1+WHD
TO CA1
T9203
LPF3(F015)
C9243
220/6.3
R9229
22K
C9235
10/16
C9234
1/16
Q9206
2SA1179
R9231
1K
C9237
220/6.3
C9236
0.1
C9244
27P
T9205
DL1(F017)
IC9204
AN2250S
S9201
AF
CN9104
N.C.
SC2
+9V
+5V
N.C
ES.SW
CDS
GND
TO CA1
TP9202
GND
L9202
10μ
L9203
10μ
C9242
3.3/6.3
C9241
0.1
C9239
2.2/10
C9238
0.1
S9202
ES
CA-2
C

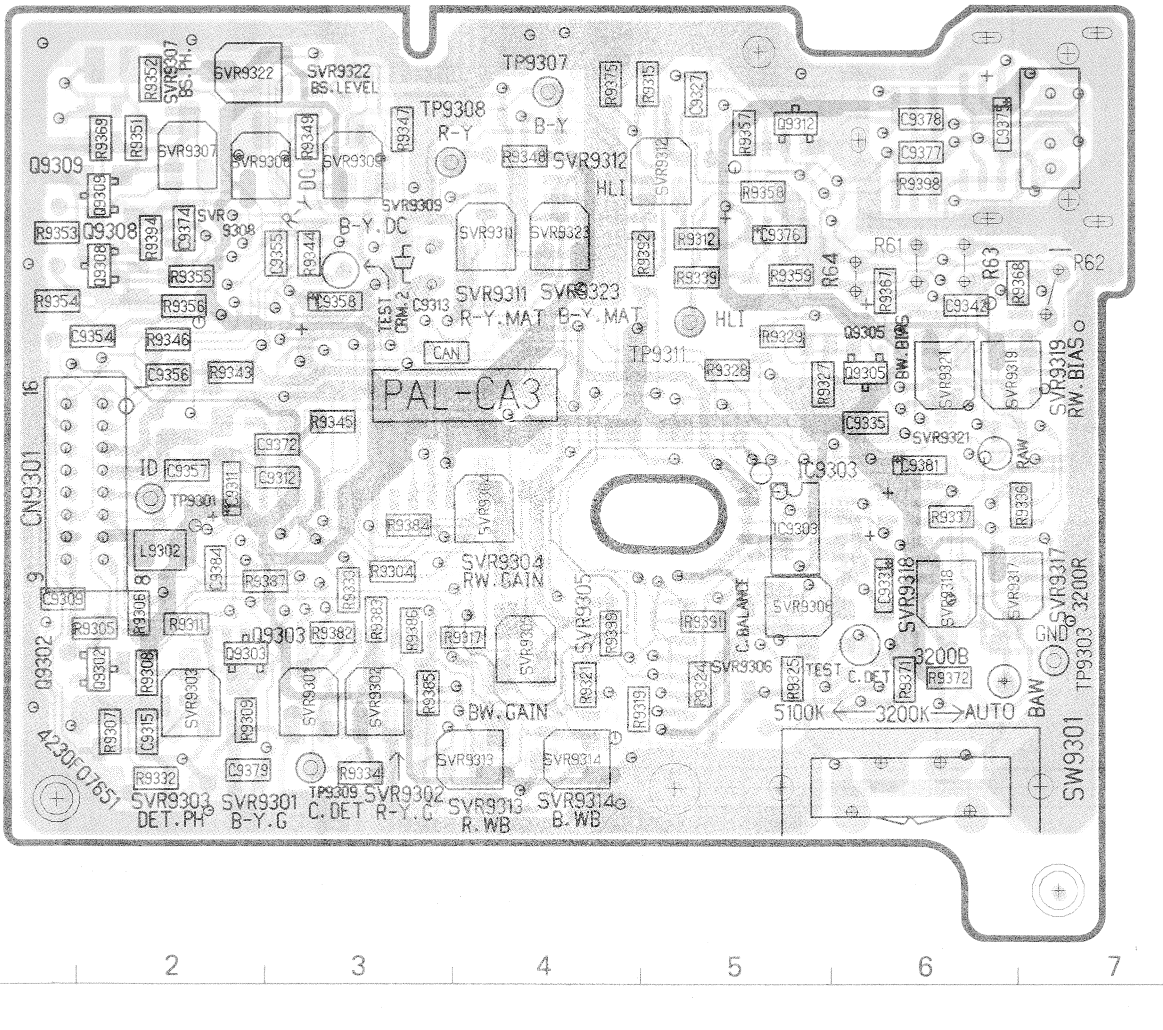
*a: REC MODE

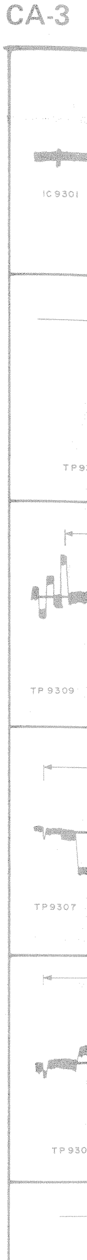
CA-3 BOARD SIDE A


IC9306
L9303
C9373
C9366
C9367
C9365
C9382
C9368
C9371
C9369
C9363
C9362
TP9308
C9364
C9359
TP9307
CAN
R9397
IC9304
IC9305
C9338
Q9311
IC9307
D9302
R61
R63
R62
R64
R9333
R9338
R9395
R9364
R9361
R9363
R9362
D9303
TP9311
HLI
R9326
T9302
IC9308
C9308
R9365
R9366
C9343
L9301
C9314
C9319
C9321
C9324
C9326
C9325
C9323
C9337
C9302
C9334
C9332
C9329
C9333
C9336
IC9309
TP9301
C9316
R9317
R9313
R9318
CN9301
IC9301
IC9302
T9301
C9308
R9301
T9305
R9302
R9303
C9301
C9304
C9305
C9307
C9306
R9322
R9323
IC9303
Q9304
GND
TP9303
TP9309
PAL-CA3
4230F07651

Ⓓ

CA-3 BOARD SIDE B

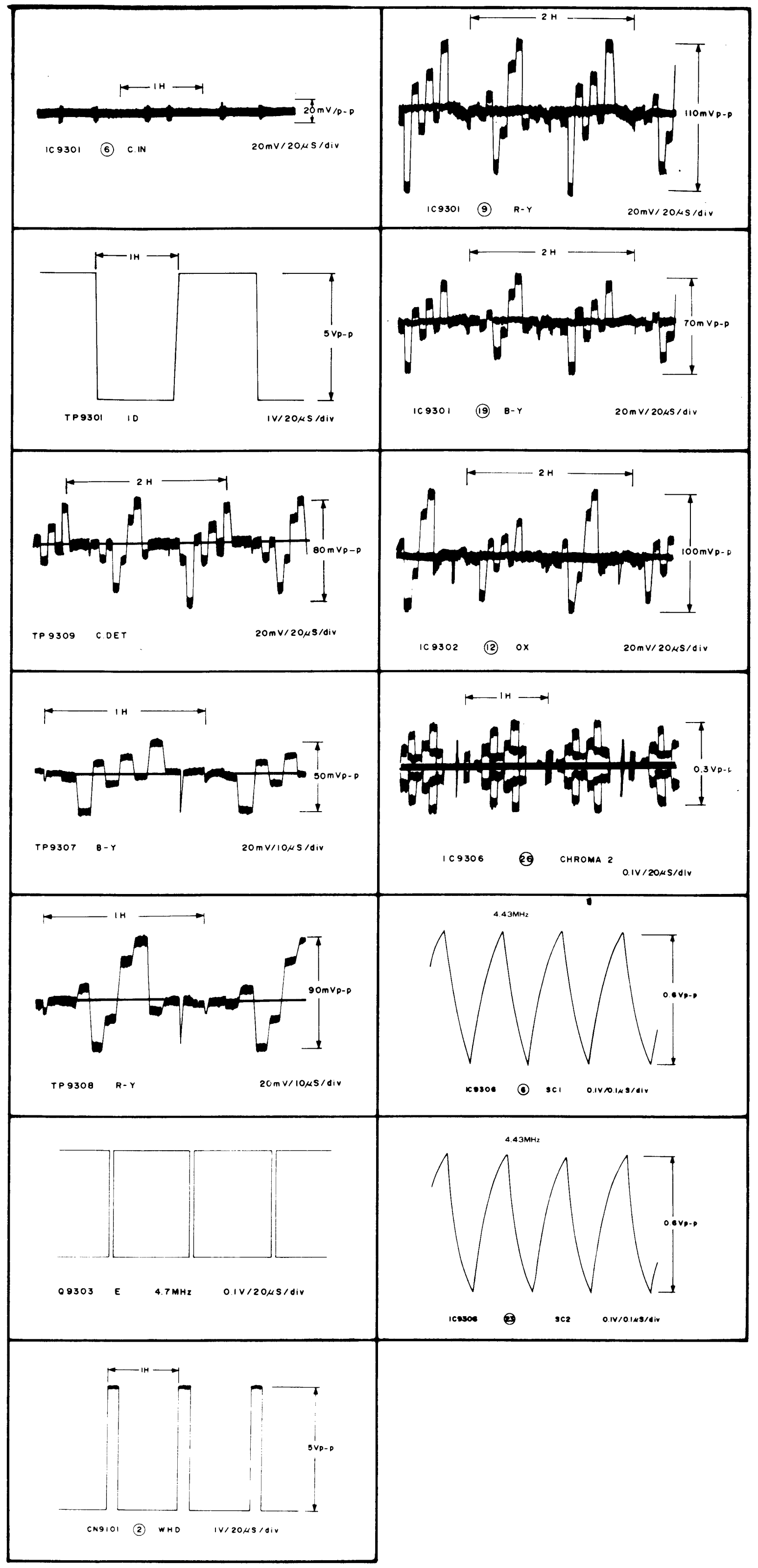

R9352
SVR9307 BS.PH.
SVR9322
SVR9322 BS.LEVEL
TP9307
TP9308 R-Y
B-Y
R9375
R9315
C9327
R9369
R9351
SVR9307
SVR9308
R9349
SVR9309
R9347
R9348
SVR9312 HLI
R9357
Q9312
C9378
C9377
C9375
R9398
Q9309
R9353
Q9308
R9394
C9374
SVR9308
R-Y. DC
B-Y. DC
SVR9309
SVR9311
SVR9323
R9358
C9376
R61
R63
R62
R64
R9354
R9355
R9356
C9355
R9344
C9358
TEST CRM.2
C9313
SVR9311 SVR9323
R-Y. MAT B-Y. MAT
HLI
R9392
R9312
R9339
R9359
R9367
R9368
C9342
Q9305
BW. BIAS
C9354
R9346
CAN
R9329
TP9311
C9356
R9343
PAL-CA3
R9328
R9327
SVR9321
SVR9319
SVR9319 RW. BIAS
16
R9345
C9335
SVR9321
RAW
CN9301
ID
C9357
C9372
C9312
TP9301
C9311
IC9303
C9381
SVR9304
R9384
R9337
R9336
L9302
C9384
SVR9304 RW. GAIN
R9387
R9304
R9333
SVR9318
SVR9317 3200R
9
8
C9309
R9306
R9305
R9311
Q9303
R9382
R9383
R9386
R9317
SVR9305
R9399
R9391
C. BALANCE
SVR9306
C9331
Q9302
R9308
SVR9303
SVR9301
SVR9302
R9385
BW. GAIN
R9321
R9319
R9324
SVR9306
R9325
TEST C. DET
R9371
3200B
R9372
GND
TP9303
BAW
R9307
C9315
R9309
5100K ⟵ 3200K ⟶ AUTO
SW9301
R9332
C9379
TP9309
R9334
SVR9313
SVR9314
SVR9303 DET. PH
SVR9301 B-Y. G
C. DET
SVR9302 R-Y. G
SVR9313 R. WB
SVR9314 B. WB
4230F07651


CA-3
IC9301
TP93
TP9309
TP9307
TP930
Q930

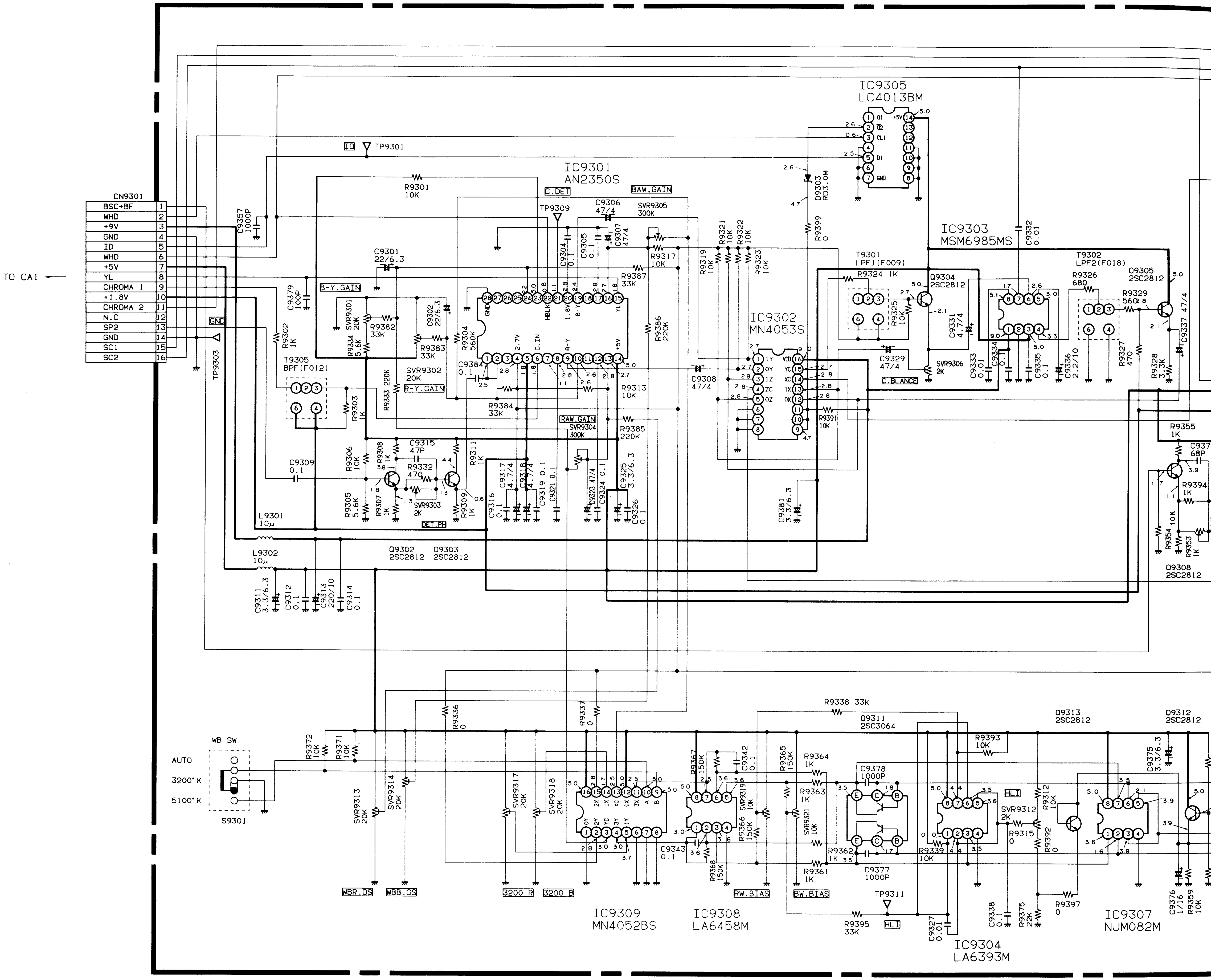
K J I H G F E D C B A

1 2 3 4 5 6 7

CA-3 BOARD SIDE (CAMERA)

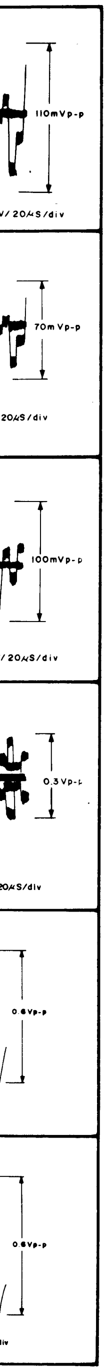


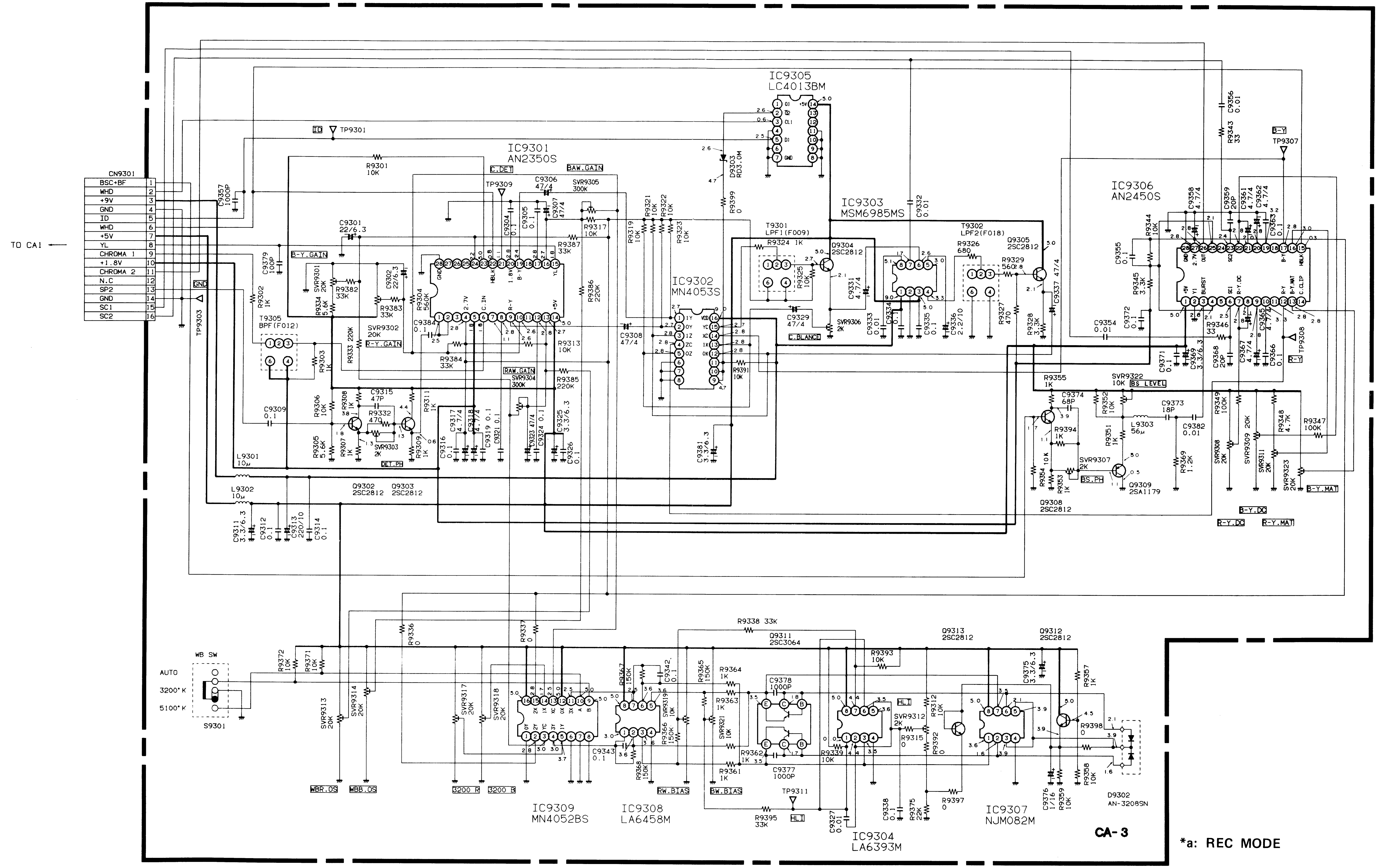
CA-3 CIRCUIT


TO CA1
CN9301
1 BSC+BF
2 WHD
3 +9V
4 GND
5 ID
6 WHD
7 +5V
8 YL
9 CHROMA 1
10 +1.8V
11 CHROMA 2
12 N.C
13 SP2
14 GND
15 SC1
16 SC2
IC9305 LC4013BM
IC9301 AN2350S
IC9303 MSM6985MS
IC9302 MN4053S
T9301 LPF1(F009)
T9302 LPF2(F018)
T9305 BPF(F012)
Q9302 2SC2812
Q9303 2SC2812
Q9304 2SC2812
Q9305 2SC2812
Q9308 2SC2812
Q9311 2SC3064
Q9312 2SC2812
Q9313 2SC2812
TP9301
TP9303
TP9309
TP9311
ID
C.DET
BAW.GAIN
B-Y.GAIN
R-Y.GAIN
RAW.GAIN
DET.PH
C.BLANCE
HLI
L9301 10μ
L9302 10μ
D9303 RD3.0M
SVR9301 20K
SVR9302 20K
SVR9303 2K
SVR9304 300K
SVR9305 300K
SVR9306 2K
SVR9312 2K
SVR9313 20K
SVR9314 20K
SVR9317 20K
SVR9318 20K
SVR9319 10K
SVR9321 10K
WB SW
AUTO
3200°K
5100°K
S9301
WBR.OS
WBB.OS
3200 R
3200 B
RW.BIAS
BW.BIAS
IC9309 MN4052BS
IC9308 LA6458M
IC9304 LA6393M
IC9307 NJM082M

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

CA-3 CIRCUIT

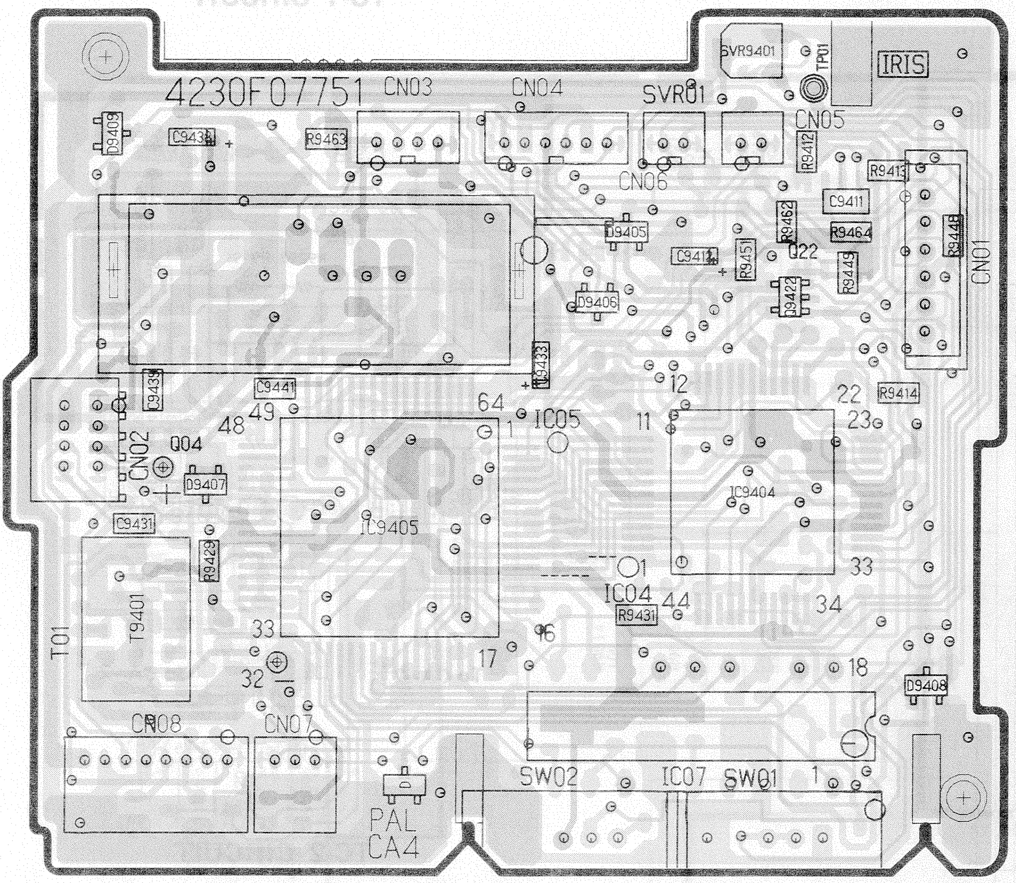

110mVp-p
V/20μS/div
70mVp-p
20μS/div
100mVp-p
/20μS/div
0.3Vp-p
20μS/div
0.6Vp-p
0.6Vp-p
div


TO CA1
CN9301
1 BSC+BF
2 WHD
3 +9V
4 GND
5 ID
6 WHD
7 +5V
8 YL
9 CHROMA 1
10 +1.8V
11 CHROMA 2
12 N.C
13 SP2
14 GND
15 SC1
16 SC2
GND
TP9303
C9357 1000P
C9379 100P
R9302 1K
T9305 BPF(F012)
R9303 1K
C9309 0.1
L9301 10μ
L9302 10μ
C9311 3.3/6.3
C9312 0.1
C9313 220/10
C9314 0.1
ID
TP9301
IC9301
AN2350S
R9301 10K
C.DET
TP9309
C9306 47/4
SVR9305 300K
BAW.GAIN
C9304 0.1
C9305 0.1
C9307 47/4
R9317 10K
R9387 33K
C9301 22/6.3
B-Y.GAIN
SVR9301 20K
R9382 33K
C9302 22/6.3
R9383 33K
R9334 5.6K
R9304 560K
C9384 0.1
SVR9302 20K
R-Y.GAIN
R9333 220K
R9384 33K
R9313 10K
R9386 220K
RAW.GAIN
SVR9304 300K
R9385 220K
R9306 10K
R9308 1K
C9315 47P
R9332 470
R9311 1K
R9305 5.6K
R9307 1K
SVR9303 2K
R9309 1K
DET.PH
C9316 0.1
C9317 4.7/4
C9318 4.7/4
C9319 0.1
C9321 0.1
C9323 47/4
C9324 0.1
C9325 3.3/6.3
C9326 0.1
Q9302 2SC2812
Q9303 2SC2812
C9308 47/4
R9319 10K
R9321 10K
R9322 10K
R9323 10K
IC9302
MN4053S
R9391 10K
C9381 3.3/6.3
IC9305
LC4013BM
D9303 RD3.0M
R9399 0
IC9303
MSM6985MS
C9332 0.01
T9301 LPF1(F009)
R9324 1K
Q9304 2SC2812
R9325 10K
C9329 47/4
C.BLANCE
SVR9306 2K
C9331 4.7/4
C9333 0.01
C9334 0.1
C9335 0.1
C9336 2.2/10
T9302 LPF2(F018)
R9326 680
R9329 560
R9327 470
Q9305 2SC2812
C9337 47/4
R9328 3.3K
C9356 0.01
R9343 33
B-Y
TP9307
IC9306
AN2450S
C9358 4.7/4
C9359 20P
C9361 4.7/4
C9362 4.7/4
C9363 0.1
R9344 10K
C9355 0.1
R9345 3.3K
C9354 0.01
C9372 0.1
C9371 0.1
C9369 3.3/6.3
C9368 20P
C9367 4.7/4
C9365 4.7/4
C9366 0.1
R9346 33
TP9308
R-Y
R9355 1K
SVR9322 10K
BS LEVEL
C9374 68P
R9352 10K
C9373 18P
L9303 56μ
C9382 0.01
R9349 100K
SVR9309 20K
R9348 4.7K
R9347 100K
R9394 1K
R9351 1K
R9354 10K
R9353 1K
SVR9307 2K
BS.PH
Q9309 2SA1179
R9369 1.2K
SVR9308 20K
SVR9311 20K
SVR9323 20K
B-Y.MAT
Q9308 2SC2812
B-Y.DC
R-Y.DC
R-Y.MAT
WB SW
AUTO
3200°K
5100°K
S9301
R9372 10K
R9371 10K
SVR9313 20K
SVR9314 20K
WBR.OS
WBB.OS
R9336 0
R9337 0
SVR9317 20K
SVR9318 20K
3200 R
3200 B
IC9309
MN4052BS
C9343 0.1
R9367 150K
C9342 0.1
SVR9319 10K
R9366 150K
R9368 150K
IC9308
LA6458M
RW.BIAS
R9365 150K
R9364 1K
R9363 1K
SVR9321 10K
R9362 1K
R9361 1K
BW.BIAS
R9338 33K
Q9311 2SC3064
C9378 1000P
C9377 1000P
TP9311
R9395 33K
HLT
C9327 0.01
IC9304
LA6393M
R9393 10K
R9339 10K
SVR9312 2K
R9315 0
R9312 10K
R9392 0
C9338 0.1
R9375 22K
R9397 0
Q9313 2SC2812
Q9312 2SC2812
C9375 3.3/6.3
R9357 1K
R9398 0
IC9307
NJM082M
C9376 1/16
R9359 10K
R9358 10K
D9302
AN-3208SN
CA- 3

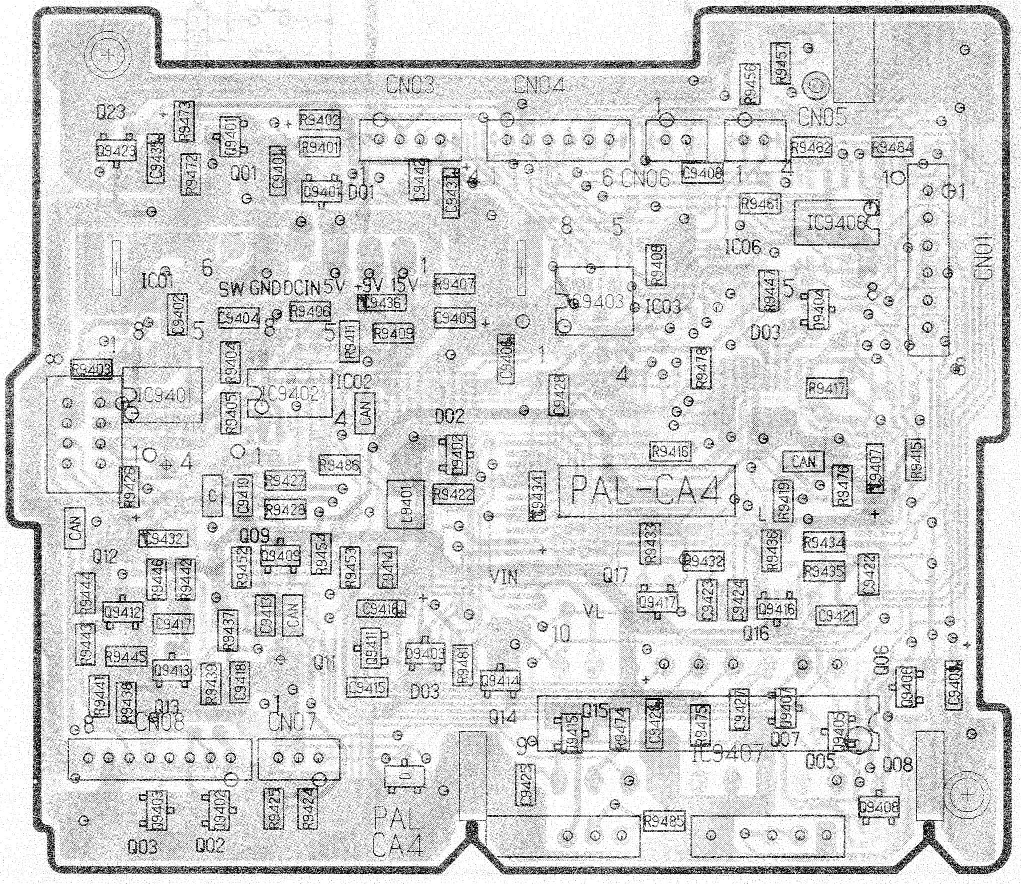
***a: REC MODE**

12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

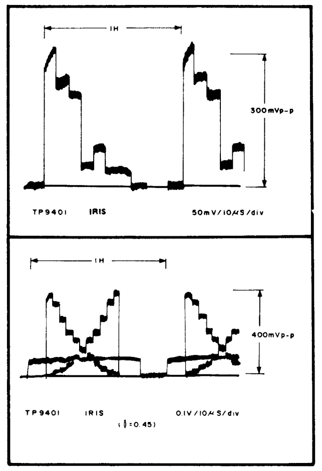
CA-4 BOARD SIDE A

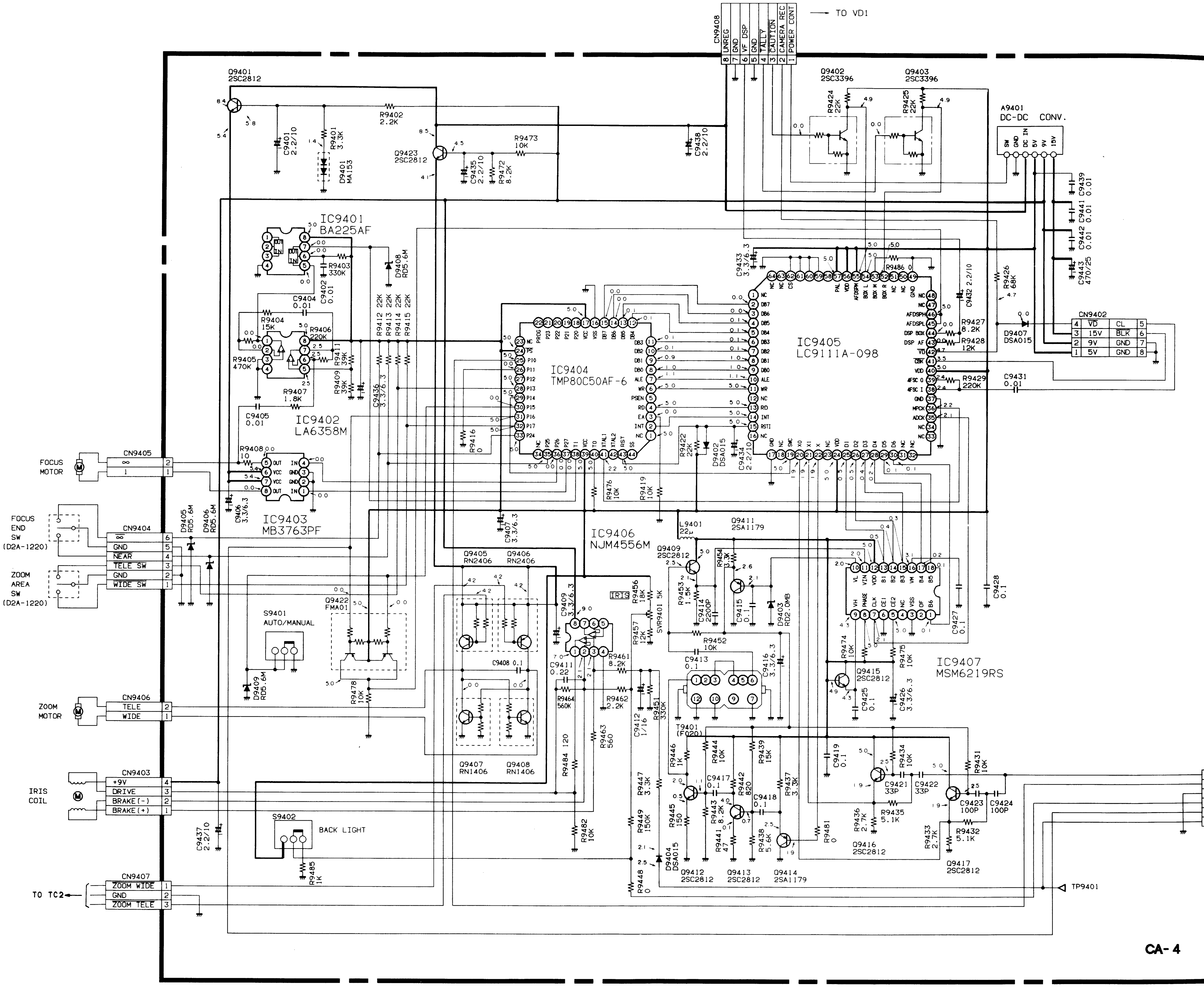

4230F07751
CN03
CN04
SVR01
SVR9401
TP01
IRIS
CN05
CN06
CN01
D9409
C9434
R9463
R9412
R9413
C9411
R9462
R9464
R9448
D9405
C9412
R9451
Q22
R9449
R9422
D9406
R9433
C9439
C9441
CN02
Q04
D9407
IC05
IC9405
IC9404
R9414
C9431
R9429
T9401
T01
IC04
R9431
D9408
CN08
CN07
SW02
IC07
SW01
PAL
CA4

CA-4 BOARD SIDE B


CN03
CN04
CN05
CN06
CN01
R9456
R9457
Q23
R9473
Q9423
C9435
R9472
D9401
R9402
R9401
Q01
C9401
D9401
D01
C9442
C9437
C9408
R9482
R9484
R9461
IC9406
IC06
IC01
SW GND DCIN 5V +9V 15V
C9402
C9404
R9406
C9436
R9407
C9405
R9411
R9409
R9408
IC9403
IC03
R9447
D9404
D03
R9403
IC9401
R9404
IC9402
IC02
CAN
C9406
R9478
R9405
C9428
R9417
R9426
D02
D9402
R9486
R9416
C9419
R9427
R9428
L9401
R9422
C9434
PAL-CA4
R9419
R9476
D9407
R9415
Q09
R9432
Q12
R9446
R9442
R9452
Q9409
R9454
R9453
C9414
VIN
Q17
R9433
Q9432
R9436
R9434
R9435
C9422
R9444
Q9412
C9417
R9437
C9413
C9418
VL
Q9417
C9423
C9424
Q9416
C9421
R9443
R9445
Q9413
R9439
C9418
Q11
C9411
D9403
R9481
Q9414
Q16
Q06
D9406
C9409
R9441
R9438
Q13
CN08
CN07
C9415
D03
Q14
Q15
Q9415
R9474
C9426
R9475
C9427
D9407
Q07
Q9405
IC9407
Q05
Q08
C9425
D9408
Q03
Q9403
Q02
Q9402
R9423
R9424
PAL
CA4
R9485

CA-4 BOARD (CAMERA)

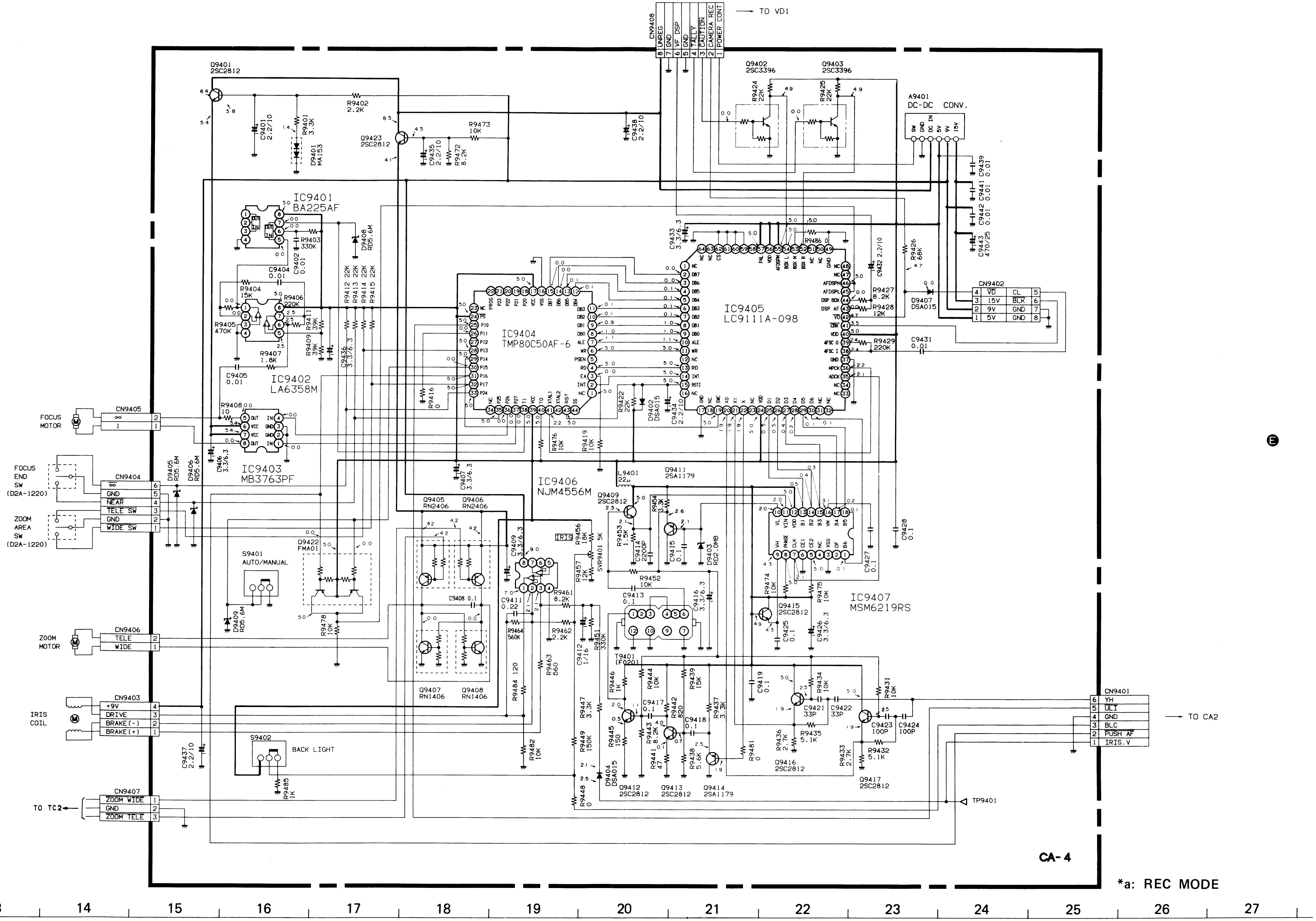




CN9408
8 UNREG
7 GND
6 VF DSP
5 GND
4 TALLY
3 CAUTION
2 CAMERA REC
1 POWER CONT
TO VD1
Q9401 2SC2812
Q9402 2SC3396
Q9403 2SC3396
Q9423 2SC2812
A9401 DC-DC CONV.
SW GND DC IN 5V 9V 15V
R9402 2.2K
R9401 3.3K
D9401 MA153
C9401 2.2/10
R9473 10K
C9435 2.2/10
R9472 8.2K
C9438 2.2/10
R9424 22K
R9425 22K
C9439 0.01
C9441 0.01
C9442 0.01
C9443 470/25
IC9401 BA225AF
R9403 330K
C9402 0.01
D9408 RD5.6M
C9404 0.01
R9404 15K
R9406 220K
R9405 470K
R9411 39K
R9409 39K
R9407 1.8K
C9405 0.01
IC9402 LA6358M
R9412 22K
R9413 22K
R9414 22K
R9415 22K
C9436 3.3/6.3
IC9404 TMP80C50AF-6
IC9405 LC9111A-098
C9433 3.3/6.3
C9432 2.2/10
R9486 0
R9426 68K
R9427 8.2K
R9428 12K
R9429 220K
C9431 0.01
D9407 DSA015
CN9402
4 VD CL 5
3 15V BLK 6
2 9V GND 7
1 5V GND 8
R9416 0
R9422 22K
D9402 DSA015
C9434 2.2/10
R9476 10K
R9419 10K
CN9405
FOCUS MOTOR
R9408 10
IC9403 MB3763PF
C9406 3.3/6.3
D9405 RD5.6M
D9406 RD5.6M
C9407 3.3/6.3
CN9404
FOCUS END SW (D2A-1220)
ZOOM AREA SW (D2A-1220)
∞
GND
NEAR
TELE SW
GND
WIDE SW
IC9406 NJM4556M
L9401 22μ
Q9411 2SA1179
Q9409 2SC2812
Q9405 RN2406
Q9406 RN2406
Q9422 FMA01
S9401 AUTO/MANUAL
D9409 RD5.6M
R9478 10K
C9409 3.3/6.3
IRIS
R9456 18K
SVR9401 5K
R9454 3.3K
R9453 1.5K
C9414 2200P
C9415 0.1
D9403 RD2.0MB
R9457 12K
R9452 10K
C9413 0.1
C9416 3.3/6.3
C9408 0.1
C9411 0.22
R9461 8.2K
R9464 560K
R9462 2.2K
C9412 1/16
R9451 330K
IC9407 MSM6219RS
R9474 10K
R9475 10K
Q9415 2SC2812
C9425 0.1
C9426 3.3/6.3
C9427 0.1
C9428 0.1
CN9406
ZOOM MOTOR
TELE
WIDE
Q9407 RN1406
Q9408 RN1406
R9484 120
R9463 560
R9482 10K
T9401 (F020)
R9446 1K
R9444 10K
R9439 15K
R9437 3.3K
C9419 0.1
R9434 10K
R9431 10K
CN9403
IRIS COIL
+9V
DRIVE
BRAKE(-)
BRAKE(+)
C9417 0.1
R9442 820
C9418 0.1
C9421 33P
C9422 33P
C9423 100P
C9424 100P
R9447 3.3K
R9449 150K
R9445 150
R9443 8.2K
R9441 47
R9438 5.6K
R9481 0
R9436 2.7K
R9435 5.1K
R9433 2.7K
R9432 5.1K
D9404 DSA015
R9448 0
Q9412 2SC2812
Q9413 2SC2812
Q9414 2SA1179
Q9416 2SC2812
Q9417 2SC2812
C9437 2.2/10
S9402 BACK LIGHT
R9485 1K
CN9407
TO TC2
ZOOM WIDE
GND
ZOOM TELE
TP9401
CA-4

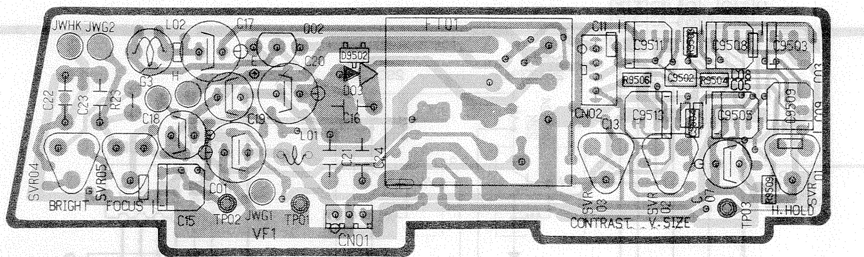
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

RA)

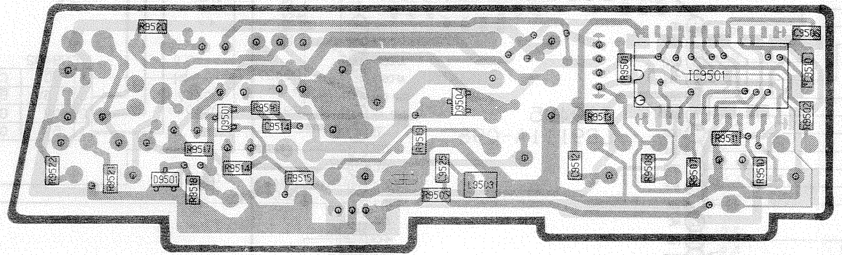

CN9408
8 UNREG
7 GND
6 VF DSP
5 GND
4 TALLY
3 CAUTION
2 CAMERA REC
1 POWER CONT
TO VD1
Q9401 2SC2812
Q9402 2SC3396
Q9403 2SC3396
A9401 DC-DC CONV.
SW GND DC IN 5V 9V 15V
Q9423 2SC2812
R9402 2.2K
R9401 3.3K
D9401 MA153
C9401 2.2/10
C9435 2.2/10
R9472 8.2K
R9473 10K
C9438 2.2/10
R9424 22K
R9425 22K
C9439 0.01
C9441 0.01
C9442 0.01
C9443 470/25
IC9401 BA225AF
R9403 330K
C9402 0.01
D9408 RD5.6M
C9404 0.01
R9404 15K
R9406 220K
R9405 470K
R9411 39K
R9409 39K
R9407 1.8K
C9405 0.01
IC9402 LA6358M
R9412 22K
R9413 22K
R9414 22K
R9415 22K
C9436 3.3/6.3
R9416 0
C9433 3.3/6.3
IC9404 TMP80C50AF-6
IC9405 LC9111A-098
R9486 0
C9432 2.2/10
R9426 68K
R9427 8.2K
R9428 12K
R9429 220K
C9431 0.01
D9407 DSA015
CN9402
4 VD CL 5
3 15V BLK 6
2 9V GND 7
1 5V GND 8
R9422 22K
D9402 DSA015
C9434 2.2/10
R9476 10K
R9419 10K
R9408 10
IC9403 MB3763PF
C9406 3.3/6.3
C9407 3.3/6.3
D9405 RD5.6M
D9406 RD5.6M
FOCUS MOTOR
CN9405
FOCUS END SW (D2A-1220)
ZOOM AREA SW (D2A-1220)
CN9404
GND
NEAR
TELE SW
GND
WIDE SW
IC9406 NJM4556M
L9401 22μ
Q9411 2SA1179
Q9409 2SC2812
R9454 3.3K
R9453 1.5K
C9414 2200P
C9415 0.1
D9403 RD2.0MB
Q9405 RN2406
Q9406 RN2406
Q9422 FMA01
S9401 AUTO/MANUAL
D9409 RD5.6M
R9478 10K
C9408 0.1
C9409 3.3/6.3
IRIS
R9456 18K
SVR9401 5K
R9457 12K
R9452 10K
C9413 0.1
C9416 3.3/6.3
C9411 0.22
R9461 8.2K
R9464 560K
R9462 2.2K
R9451 330K
C9412 1/16
T9401 (F020)
IC9407 MSM6219RS
R9474 10K
R9475 10K
Q9415 2SC2812
C9425 0.1
C9426 3.3/6.3
C9427 0.1
C9428 0.1
ZOOM MOTOR
CN9406
TELE
WIDE
Q9407 RN1406
Q9408 RN1406
R9484 120
R9463 560
IRIS COIL
CN9403
+9V
DRIVE
BRAKE(-)
BRAKE(+)
C9437 2.2/10
S9402 BACK LIGHT
R9485 1K
R9482 10K
R9447 3.3K
R9449 150K
R9448 0
D9404 DSA015
R9446 1K
R9445 150
R9444 10K
R9443 8.2K
R9441 47
R9442 820
R9439 15K
R9438 5.6K
R9437 3.3K
C9417 0.1
C9418 0.1
Q9412 2SC2812
Q9413 2SC2812
Q9414 2SA1179
R9481 0
C9419 0.1
R9434 10K
R9431 10K
C9421 33P
C9422 33P
C9423 100P
C9424 100P
R9436 2.7K
R9435 5.1K
R9433 2.7K
R9432 5.1K
Q9416 2SC2812
Q9417 2SC2812
CN9401
6 YH
5 ULT
4 GND
3 BLC
2 PUSH AF
1 IRIS.V
TO CA2
TP9401
CN9407
ZOOM WIDE
GND
ZOOM TELE
TO TC2
CA-4
12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

*a: REC MODE

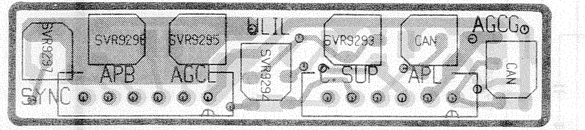
VF-1 BOARD SIDE A


JW1K
JW62
L02
C17
Q02
FL01
C11
C9511
C9508
C9503
C23
C18
C19
C20
L01
CN02
C9513
C9505
SVR04
BRIGHT
SVR05
FOCUS
C15
TP02
JW61
TP01
VF1
CN01
CONTRAST
V.SIZE
H.HOLD
SVR01

VF-1 BOARD SIDE B


R9520
IC9501

TC-1 BOARD SIDE A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SVR9295
SVR9293
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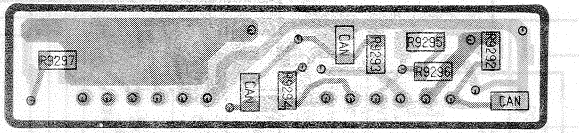
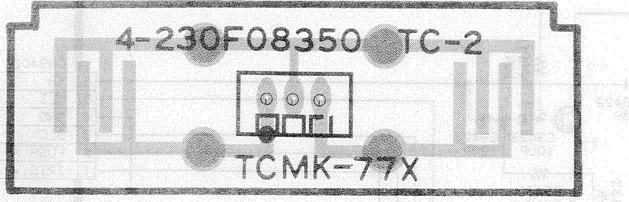
AGCG
APB
AGCE
SUP
APL
SYNC

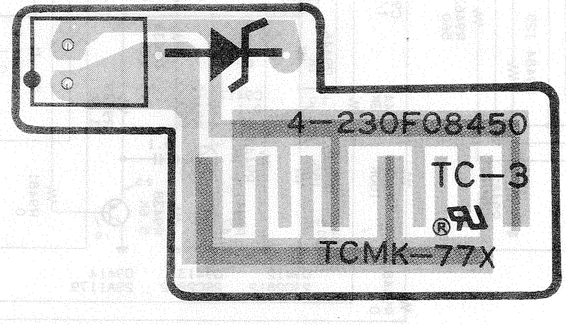
TC-1 BOARD SIDE B

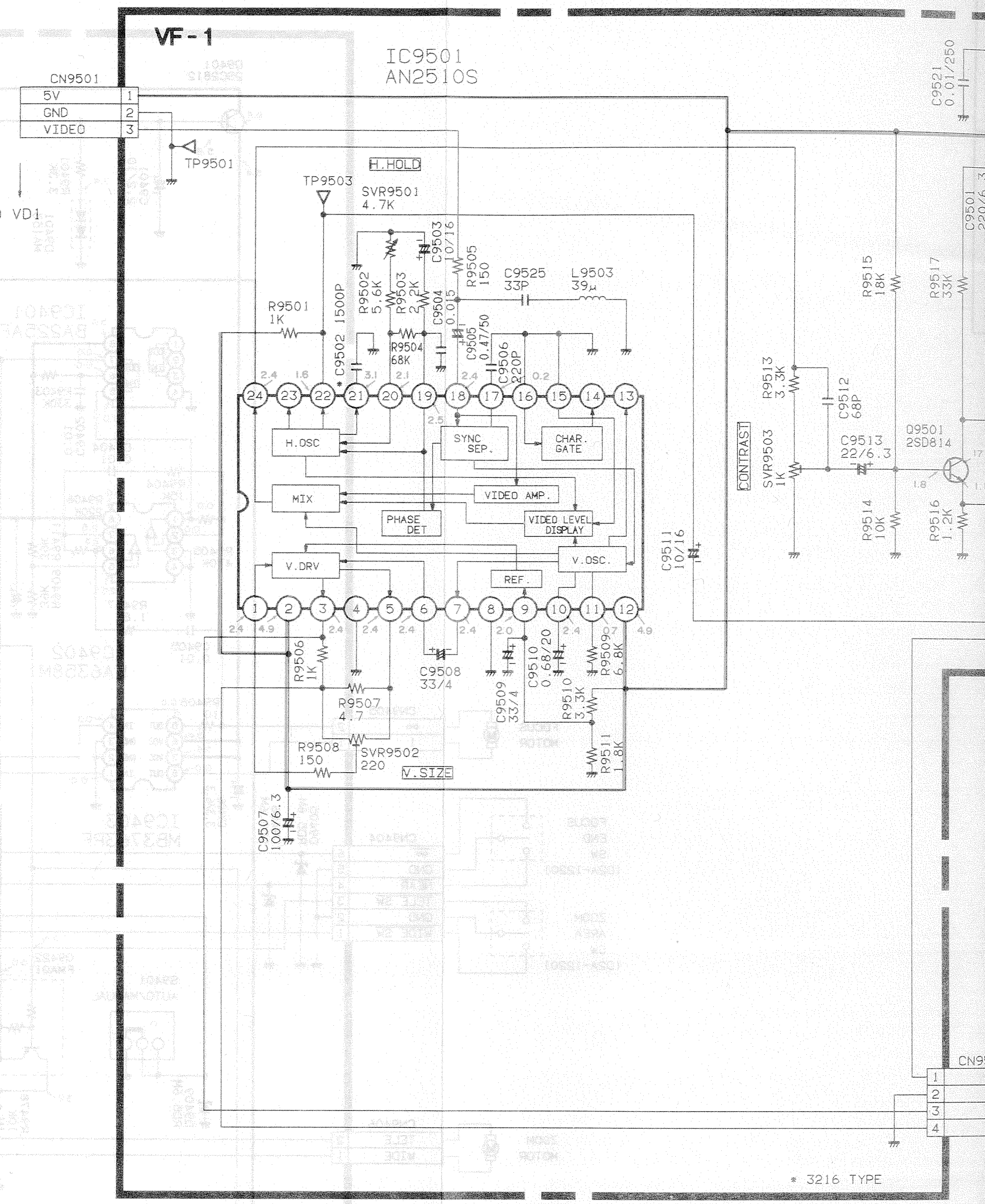

R9237
CAN
R9295
R9236
CAN

TC-2 BOARD SIDE A


4-230F08350
TC-2
TCMK-77X

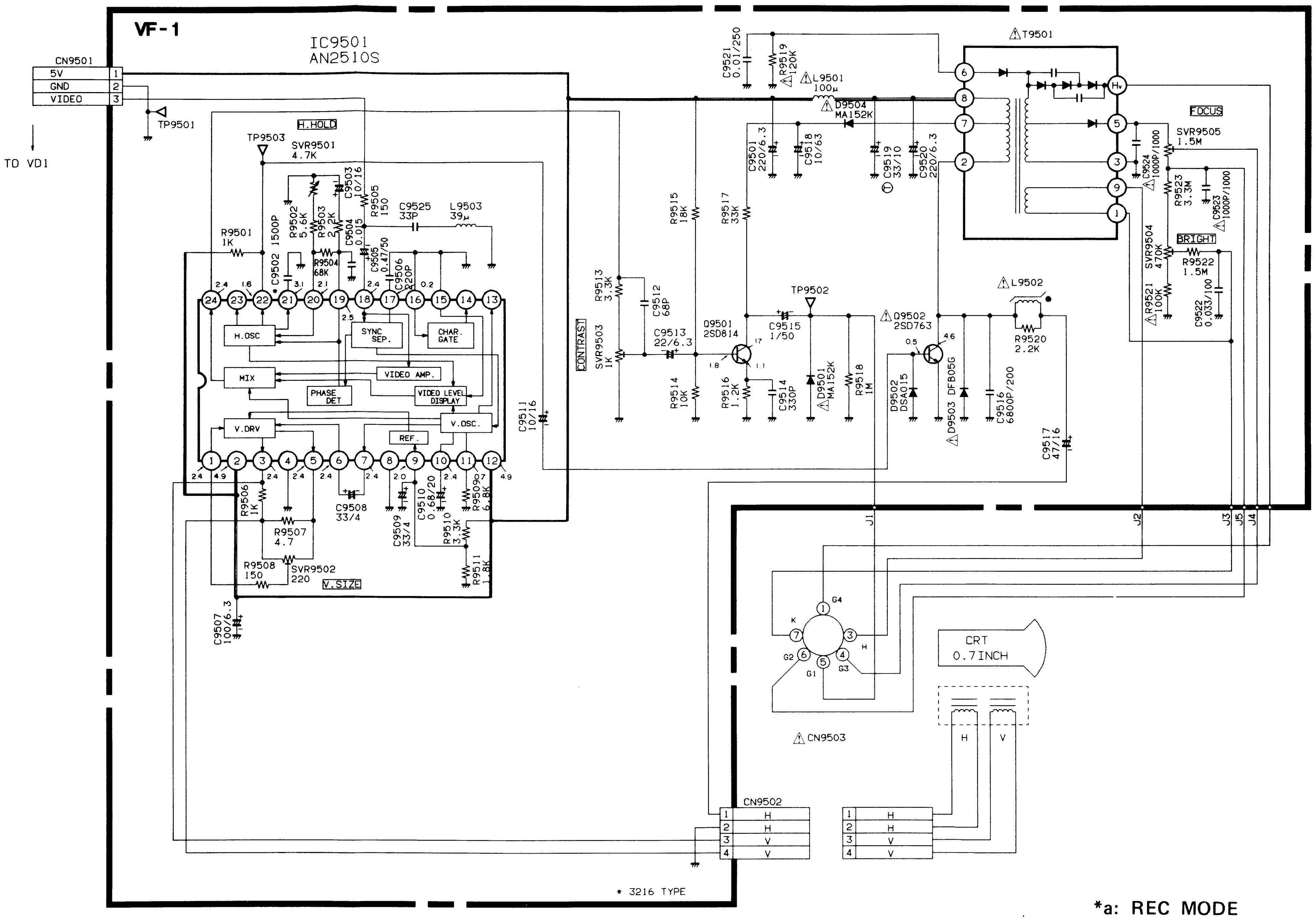
TC-3 BOARD SIDE A


4-230F08450
TC-3
TCMK-77X

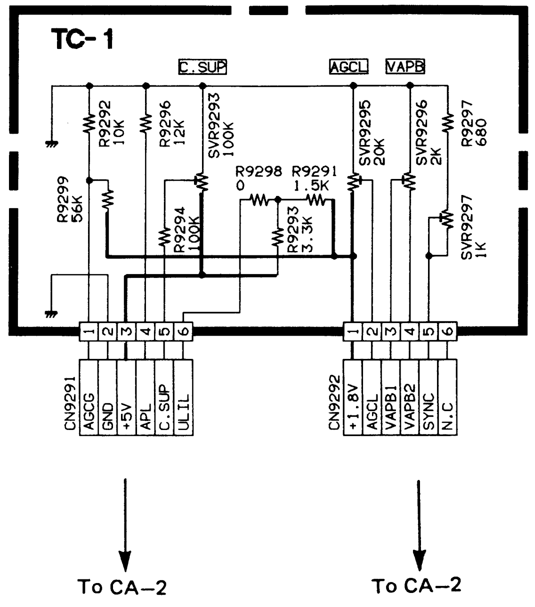

VF-1
IC9501
AN2510S
CN9501
5V
GND
VIDEO
TO VD1
TP9501
TP9503
H.HOLD
SVR9501
4.7K
R9501
1K
C9502
1500P
R9502
5.6K
R9503
2.2K
C9503
10/16
R9504
68K
C9504
0.015
R9505
150
C9505
0.47/50
C9506
220P
C9525
33P
L9503
39μ
H.OSC
SYNC SEP.
CHAR. GATE
MIX
VIDEO AMP.
PHASE DET
VIDEO LEVEL DISPLAY
V.DRV
REF.
V.OSC.
R9506
1K
R9507
4.7
R9508
150
SVR9502
220
V.SIZE
C9507
100/6.3
C9508
33/4
C9509
33/4
C9510
0.68/20
R9509
6.8K
R9510
3.3K
R9511
1.8K
C9511
10/16
CONTRAST
SVR9503
1K
R9513
3.3K
C9512
68P
C9513
22/6.3
Q9501
2SD814
R9514
10K
R9515
18K
R9516
1.2K
R9517
33K
C9521
0.01/250
C9501
CN9
* 3216 TYPE

K J I H G F E D C B A

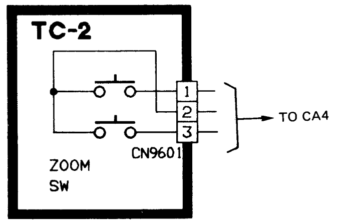
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17


VF-1
IC9501
AN2510S
CN9501
5V
GND
VIDEO
TO VD1
TP9501
TP9503
H.HOLD
SVR9501
4.7K
R9501
1K
C9502
1500P
R9502
5.6K
R9503
2.2K
R9504
68K
C9503
10/16
C9504
0.015
C9505
0.47/50
R9505
150
C9506
220P
C9525
33P
L9503
39μ
H.OSC
SYNC SEP.
CHAR. GATE
MIX
VIDEO AMP.
PHASE DET
VIDEO LEVEL DISPLAY
V.DRV
V.OSC.
REF.
C9511
10/16
R9506
1K
R9507
4.7
R9508
150
SVR9502
220
V.SIZE
C9507
100/6.3
C9508
33/4
C9509
33/4
C9510
0.68/20
R9510
3.3K
R9509
6.8K
R9511
1.8K
CONTRAST
SVR9503
1K
R9513
3.3K
C9512
68P
C9513
22/6.3
R9514
10K
R9515
18K
R9517
33K
R9516
1.2K
C9514
330P
C9521
0.01/250
R9519
120K
L9501
100μ
D9504
MA152K
C9501
220/6.3
C9518
10/63
C9519
33/10
C9520
220/6.3
Q9501
2SD814
TP9502
C9515
1/50
D9501
MA152K
R9518
1M
Q9502
2SD763
D9502
DSA015
D9503 DF805G
C9516
6800P/200
L9502
R9520
2.2K
C9517
47/16
T9501
H.V
FOCUS
SVR9505
1.5M
C9524
1000P/1000
R9523
3.3M
C9523
1000P/1000
BRIGHT
SVR9504
470K
R9522
1.5M
R9521
100K
C9522
0.033/100
J1
J2
J3
J5
J4
G4
K
G2
G1
G3
H
CRT
0.7INCH
CN9503
H
V
CN9502
H
H
V
V
• 3216 TYPE

TC-1 CIRCUIT

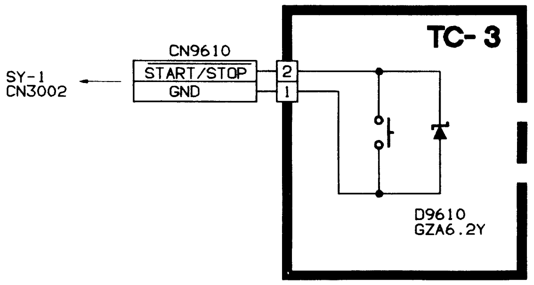

TC-1
C.SUP
AGCL
VAPB
R9292
10K
R9296
12K
SVR9293
100K
SVR9295
20K
SVR9296
2K
R9297
680
R9299
56K
R9294
100K
R9298
0
R9291
1.5K
R9293
3.3K
SVR9297
1K
CN9291
AGCG
GND
+5V
APL
C.SUP
ULIL
CN9292
+1.8V
AGCL
VAPB1
VAPB2
SYNC
N.C
To CA-2
To CA-2

TC-2 CIRCUIT


TC-2
CN9601
ZOOM
SW
TO CA4

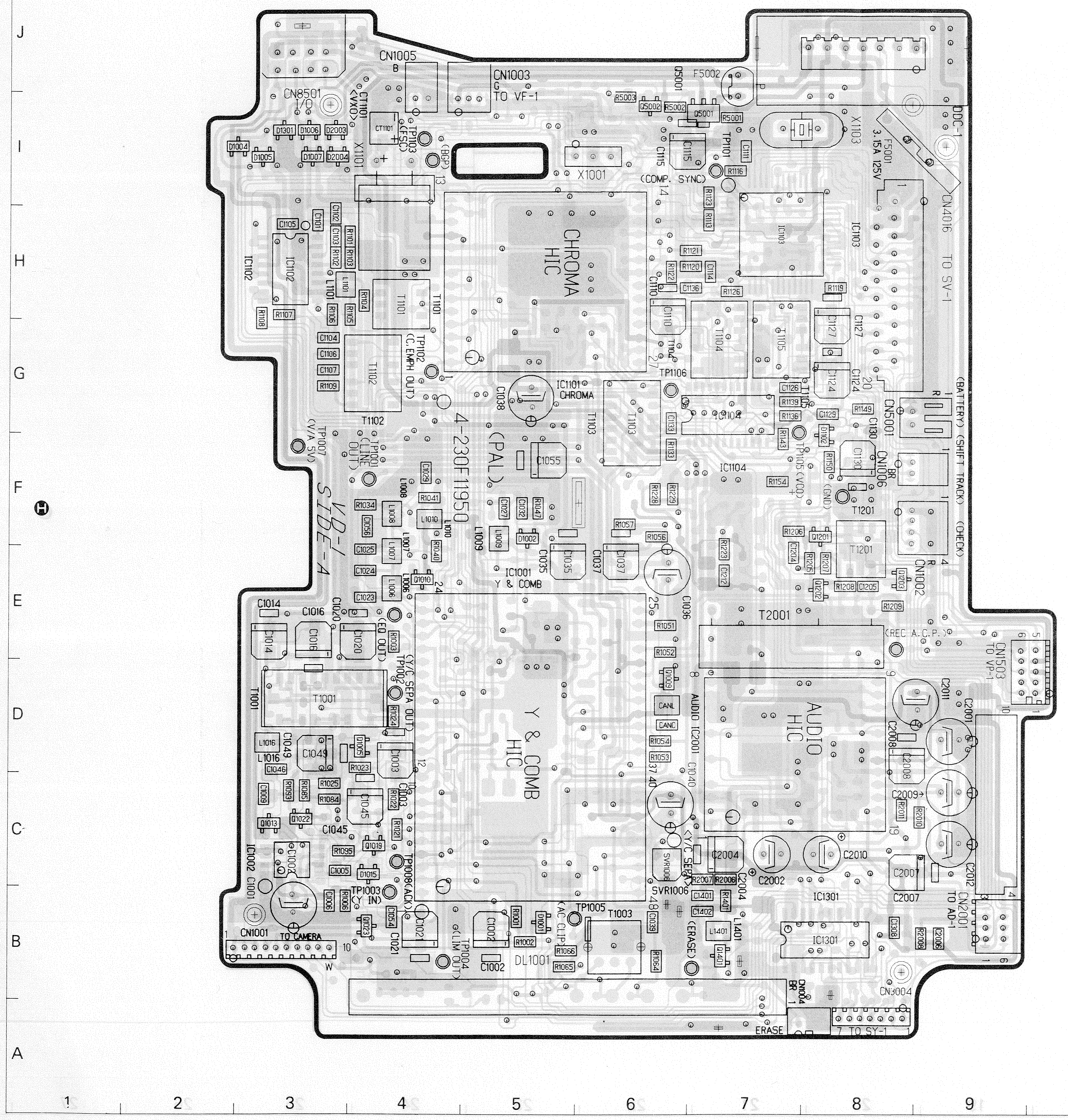
*a: REC MODE

TC-3 CIRCUIT

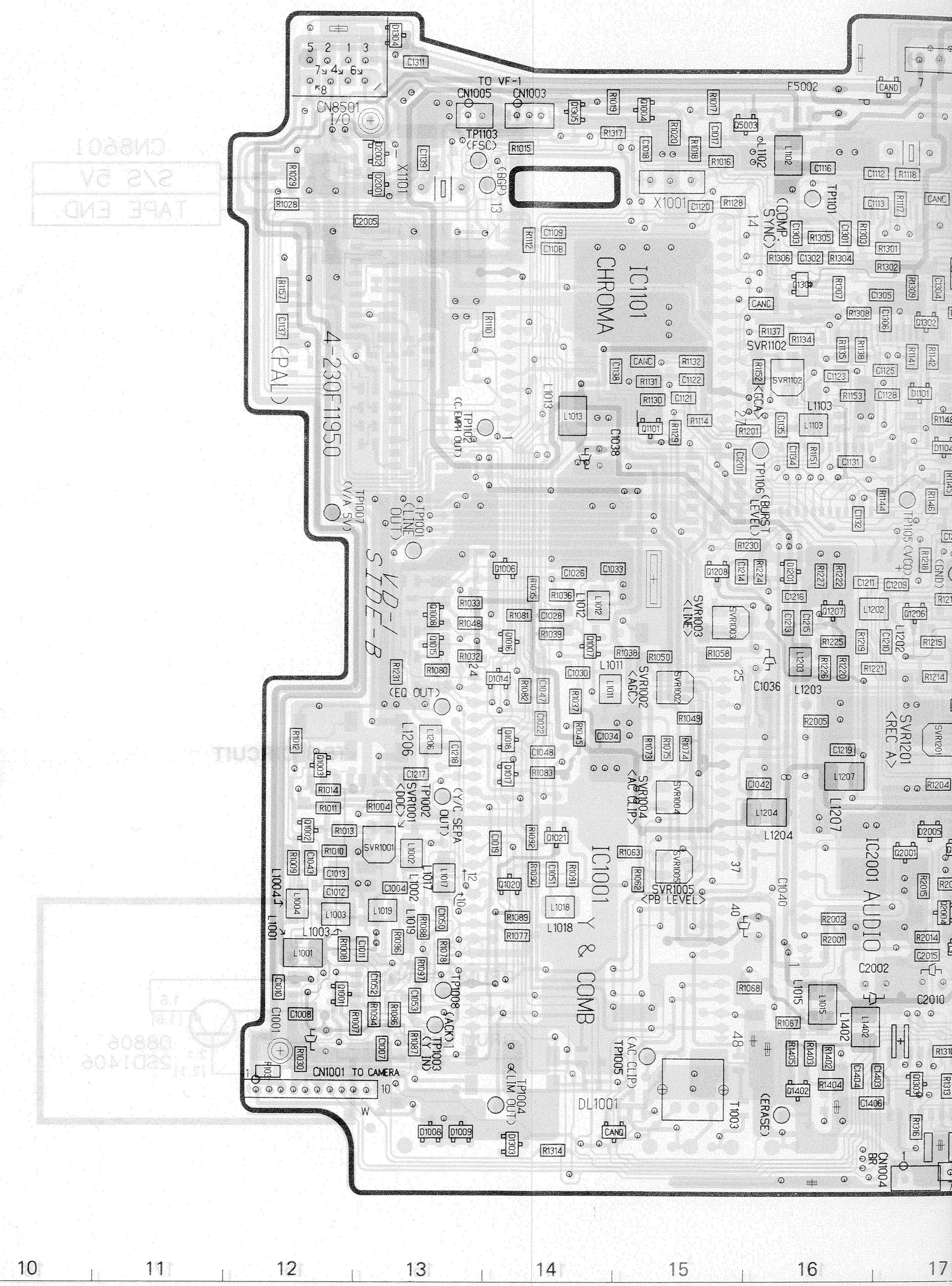

TC-3
SY-1
CN3002
CN9610
START/STOP
GND
D9610
GZA6.2Y

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

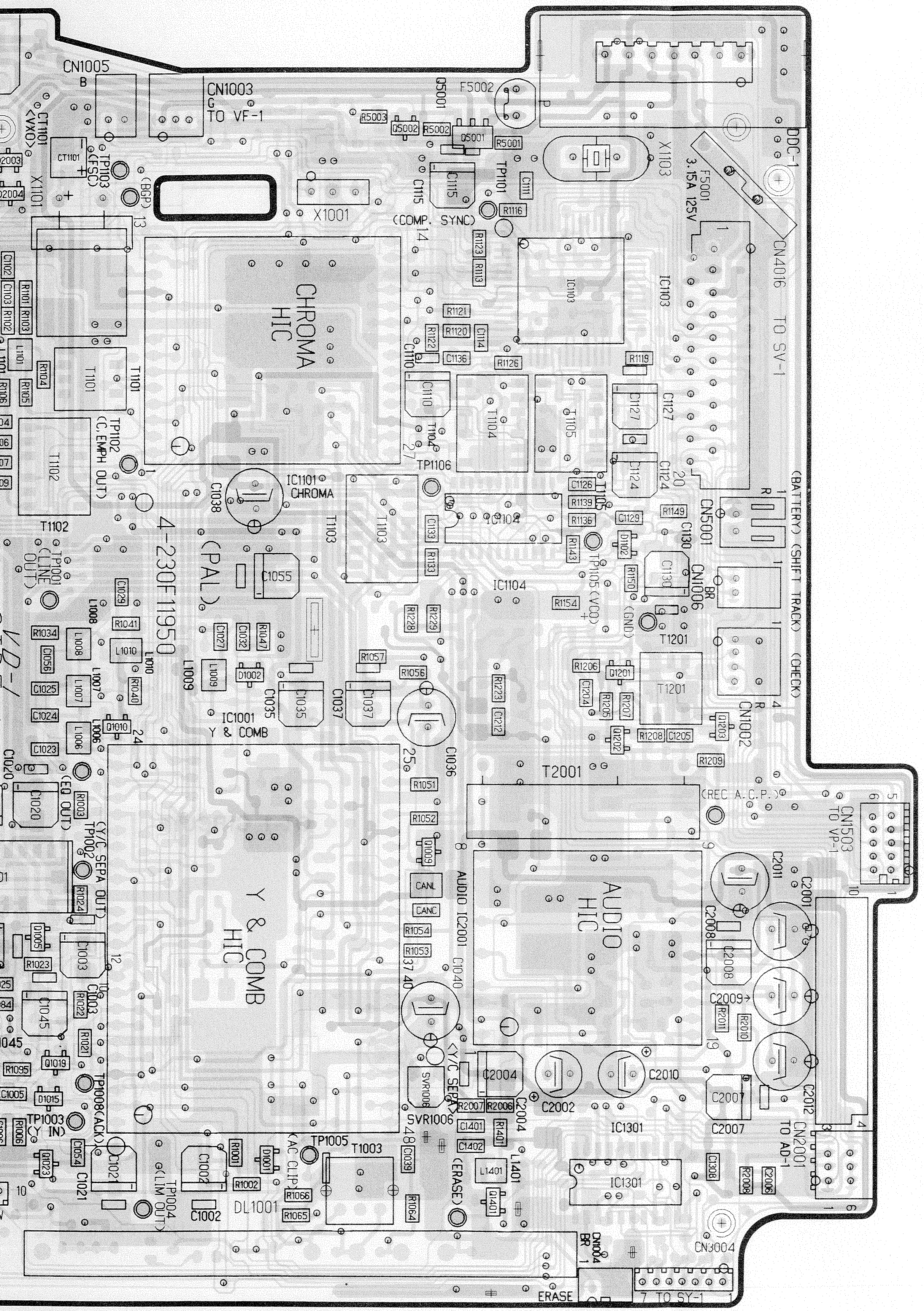
VD-1 BOARD SIDE A


K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
CN1005
CN1003
TO VF-1
CN8501
CHROMA
HIC
IC1101
CHROMA
4-230F1950
(PAL)
S IDE-A
Y & COMB
HIC
IC1001
Y & COMB
AUDIO
HIC
AUDIO IC2001
T2001
X1001
X1103
F5001
3.15A 125V
F5002
CN4016
TO SV-1
CN5001
CN1006
CN1002
CN503
TO VP-1
CN2001
TO AD-1
CN1001
TO CAMERA
CN1004
7 TO SY-1
ERASE
DL1001
IC1301
IC1104
T1201
T1101
T1102
T1001
T1003
SVR1006
(BATTERY) (SHIFT TRACK) (CHECK)
(REC A.C.P.)

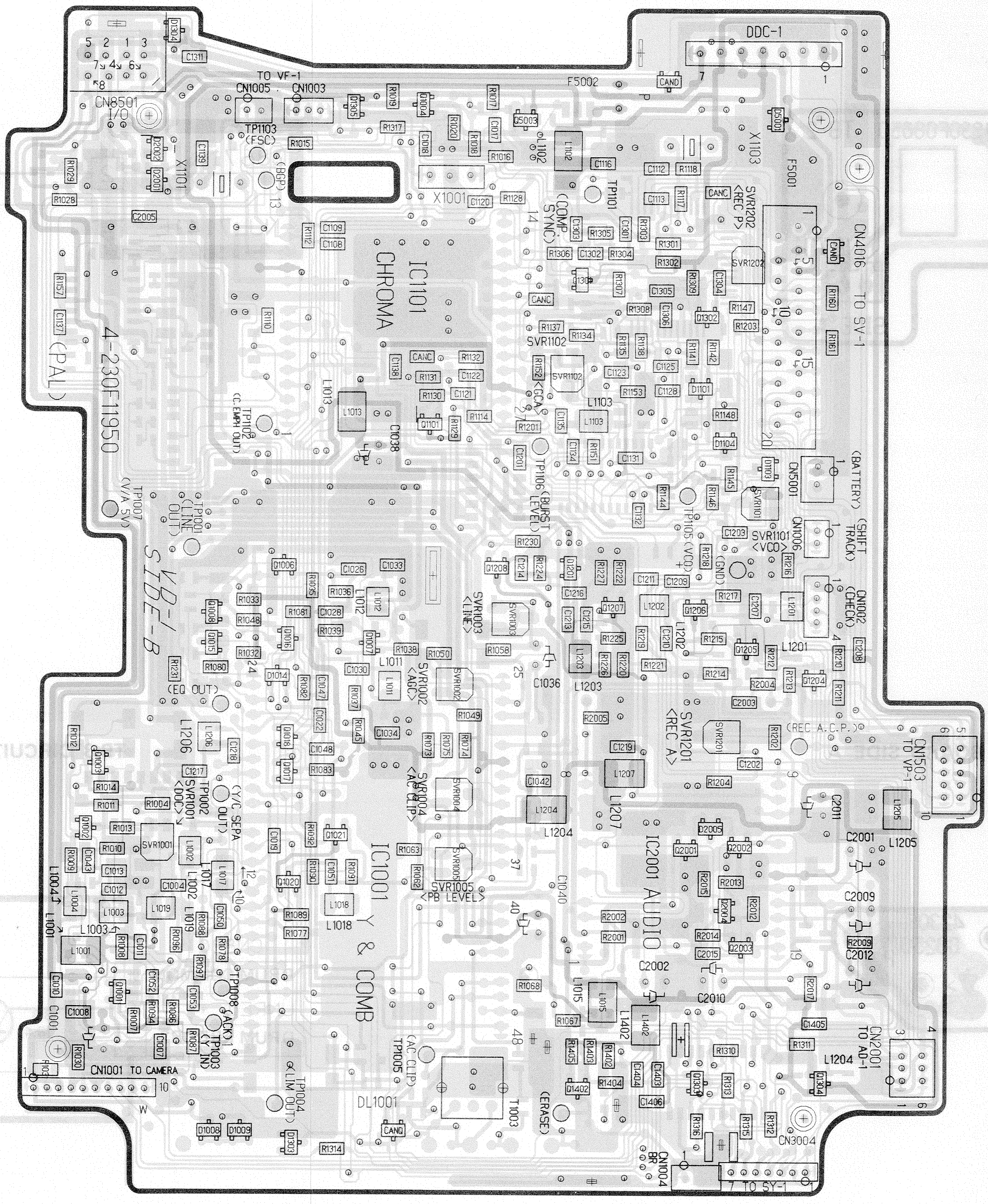
VD-1 BOARD SIDE B


10
11
12
13
14
15
16
17
CN1005
CN1003
TO VF-1
CN8501
F5002
X1001
CHROMA
IC1101
4-230F1950
(PAL)
S IDE-B
IC1001
Y & COMB
IC2001 AUDIO
SVR1102
SVR1201
SVR1001
SVR1002
SVR1003
SVR1004
SVR1005
<PB LEVEL>
CN1001 TO CAMERA
DL1001
T1003
CN1004

VD-1 BOARD SIDE A

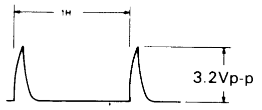

CN1005
CN1003 TO VF-1
F5002
X1103
DDC-1
F5001 3.15A 125V
CN4016 TO SV-1
X1001
(COMP. SYNC)
CHROMA HIC
IC1101 CHROMA
IC1103
4-230F1950 (PAL)
IC1104
CN5001 (BATTERY)
CN1006 (SHIFT TRACK)
CN1002 (CHECK)
T1201
T2001
(REC A.C.P.)
CN1503 TO VP-1
IC1001 Y & COMB
Y & COMB HIC
AUDIO HIC
AUDIO IC2001
SVR1006
IC1301
CN2001 TO AD-1
DL1001
CN3004
CN3004 TO SY-1
ERASE
(ERASE)
TP1005 (AC CLIP)
TP1004 (LIM OUT)
TP1003 (Y IN)

VD-1 BOARD SIDE B

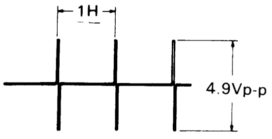

DDC-1
TO VF-1
CN1005
CN1003
CN8501
F5002
X1103
F5001
TP1103 (FSC)
X1101
X1001
IC1101 CHROMA
SVR1202 (REC P)
CN4016 TO SV-1
4-230F1950 (PAL)
SIDE-B
SVR1102
SVR1101 (VCO)
CN5001 (BATTERY)
CN1006 (SHIFT TRACK)
CN1002 (CHECK)
SVR1003 (LINE)
SVR1002 (AGC)
SVR1201 (REC A)
(REC A.C.P.)
CN1503 TO VP-1
SVR1004 (AC CLIP)
SVR1001
SVR1005 (PB LEVEL)
IC1001 Y & COMB
IC2001 AUDIO
CN2001 TO AD-1
CN1001 TO CAMERA
DL1001
T1003
(ERASE)
CN3004
7 TO SY-1

4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

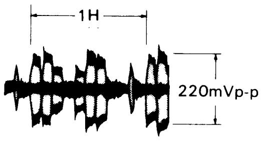
VD-1 BOARD (VIDEO/AUDIO)



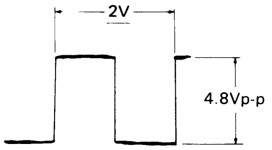
IC1101 ⑬ REC/PB



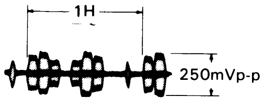
IC1103 ㊷ REC



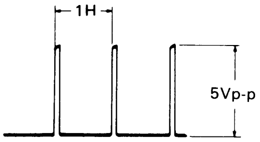
IC1001 ㊶ PB



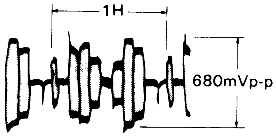
IC1001 ㉛ REC/PB



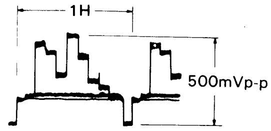
IC1001 ㉒ PB



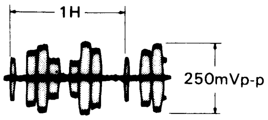
IC1103 ㊹ REC/P B



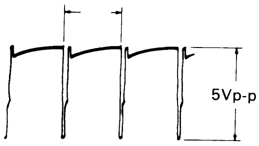
IC1001 ㊽ REC



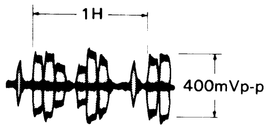
IC1001 ⑫ (TP1003) REC



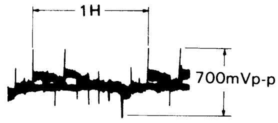
IC1001 ㉒ EE/REC



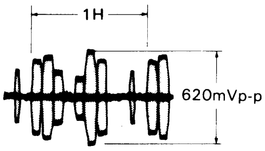
IC1103 ㊻ REC



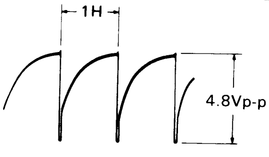
IC1001 ㊽ PB



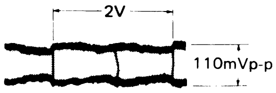
IC1001 ㊱ PB



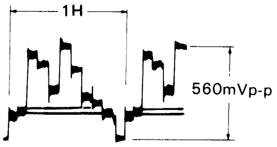
IC1102 ① REC



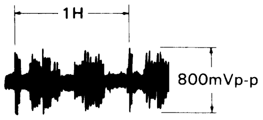
IC1103 ㊻ P B



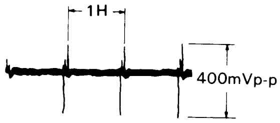
TP1202 P B



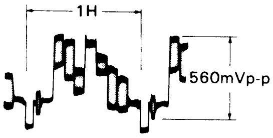
IC1001 ① P B



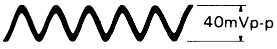
IC1102 ① P B



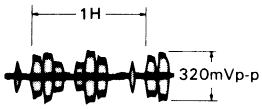
IC1103 ㊽ REC



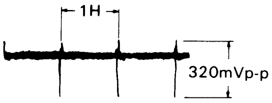
IC100 ⑯ REC



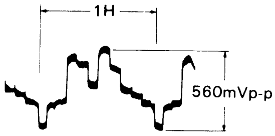
(13.3MHz)
Q1004 B PB



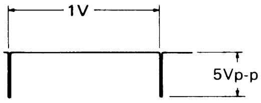
IC1102 ⑫ P B



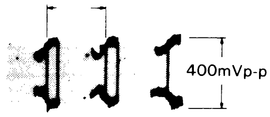
IC1103 ㊽ P B



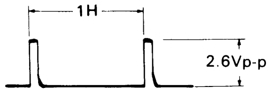
IC1001 ⑱ REC



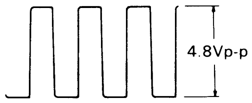
IC1103 ③ REC



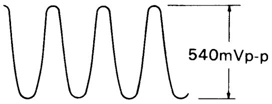
IC1101 ④ P B



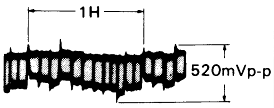
IC1001 ⑳ (TP1101) REC/PB



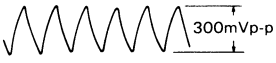
(732KHz)
IC1103 ㉟ REC/P B



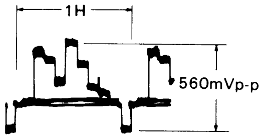
(4.43MHz)
TP1103 REC/P B



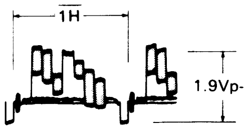
IC1001 ㉔ PB



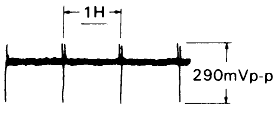
(5.86MHz)
IC1103 ㊲ REC/P B



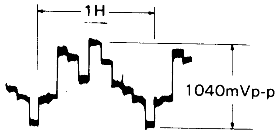
IC1001 ⑦ REC



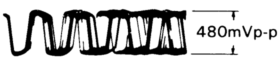
IC1001 ㉗ REC



IC1103 ㊶ REC

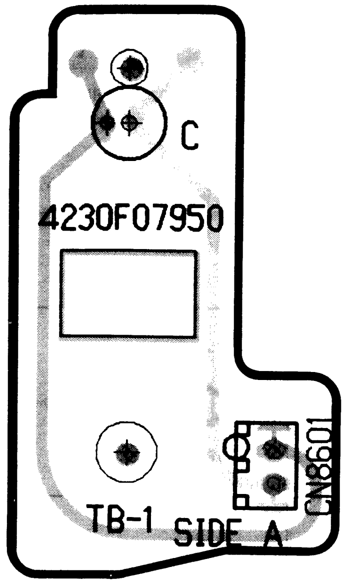


IC1001 ⑤ REC/P B

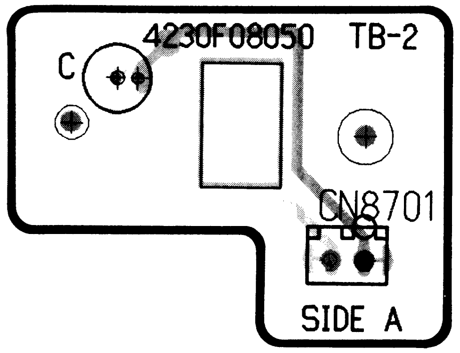


IC1001 ㉙ REC

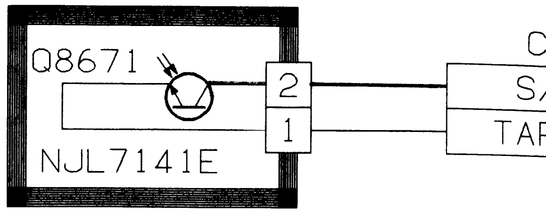
TB-1 BOARD SIDE A


C
4230F07950
TB-1
SIDE A
CN8601

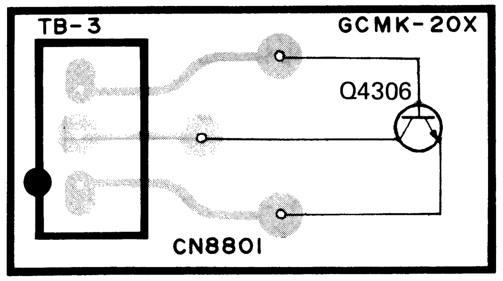
TB-2 BOARD SIDE A


C
4230F08050
TB-2
CN8701
SIDE A

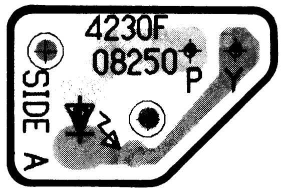
TB-1 CIRCUIT


Q8671
NJL7141E
2
1
C
S
TA

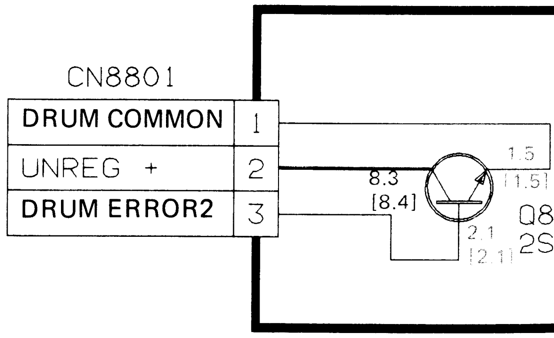
TB-3 BOARD SIDE A


TB-3
GCMK-20X
Q4306
CN8801

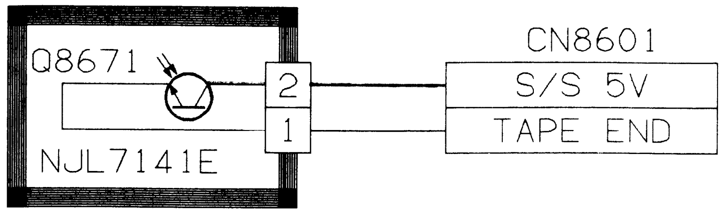
OT-1 BOARD SIDE A


4230F
08250
P
Y
SIDE A

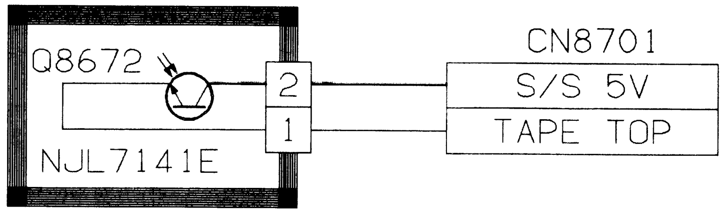
TB-3 CIRCUIT


CN8801
DRUM COMMON
1
UNREG +
2
DRUM ERROR2
3
8.3
[8.4]
1.5
[1.5]
2.1
[2.1]
Q8
2S

TB-1 CIRCUIT

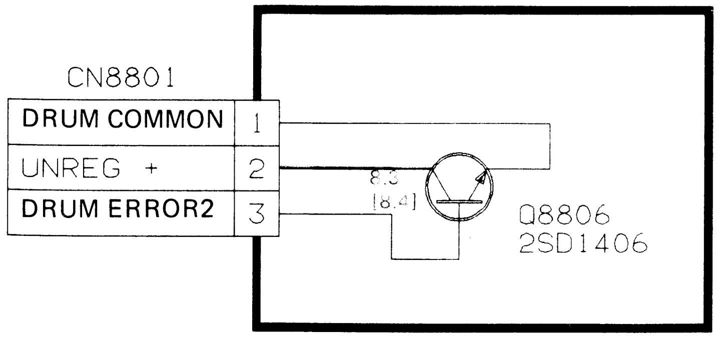

Q8671
NJL7141E
2
1
CN8601
S/S 5V
TAPE END

TB-2 CIRCUIT

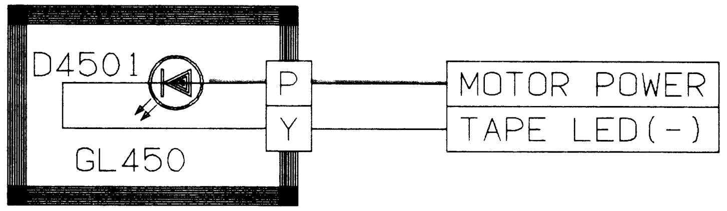

Q8672
NJL7141E
2
1
CN8701
S/S 5V
TAPE TOP

Ⓖ

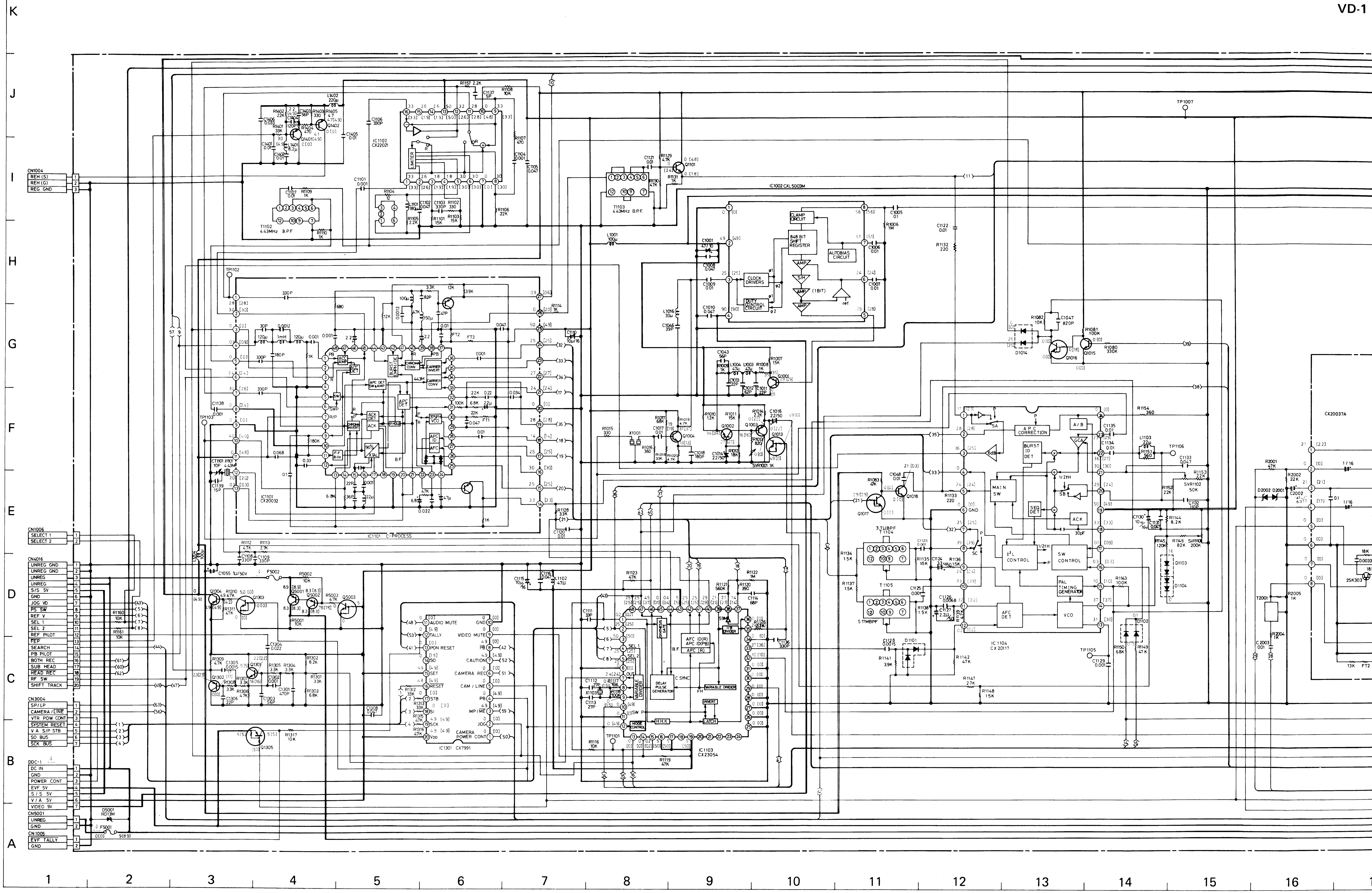
TB-3 CIRCUIT


CN8801
DRUM COMMON
UNREG +
DRUM ERROR2
1
2
3
8.3
[8.4]
Q8806
2SD1406

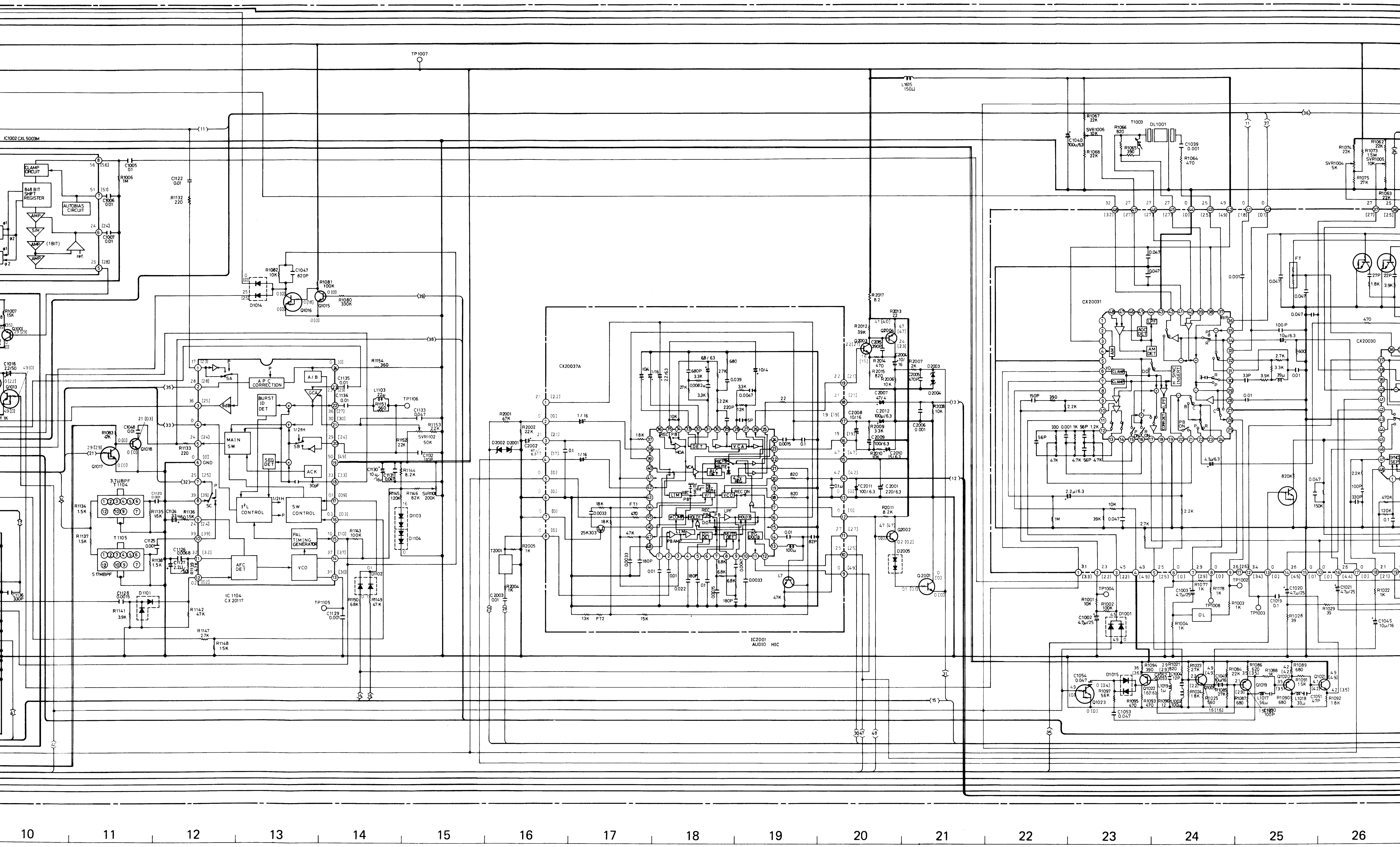
OT-1 CIRCUIT

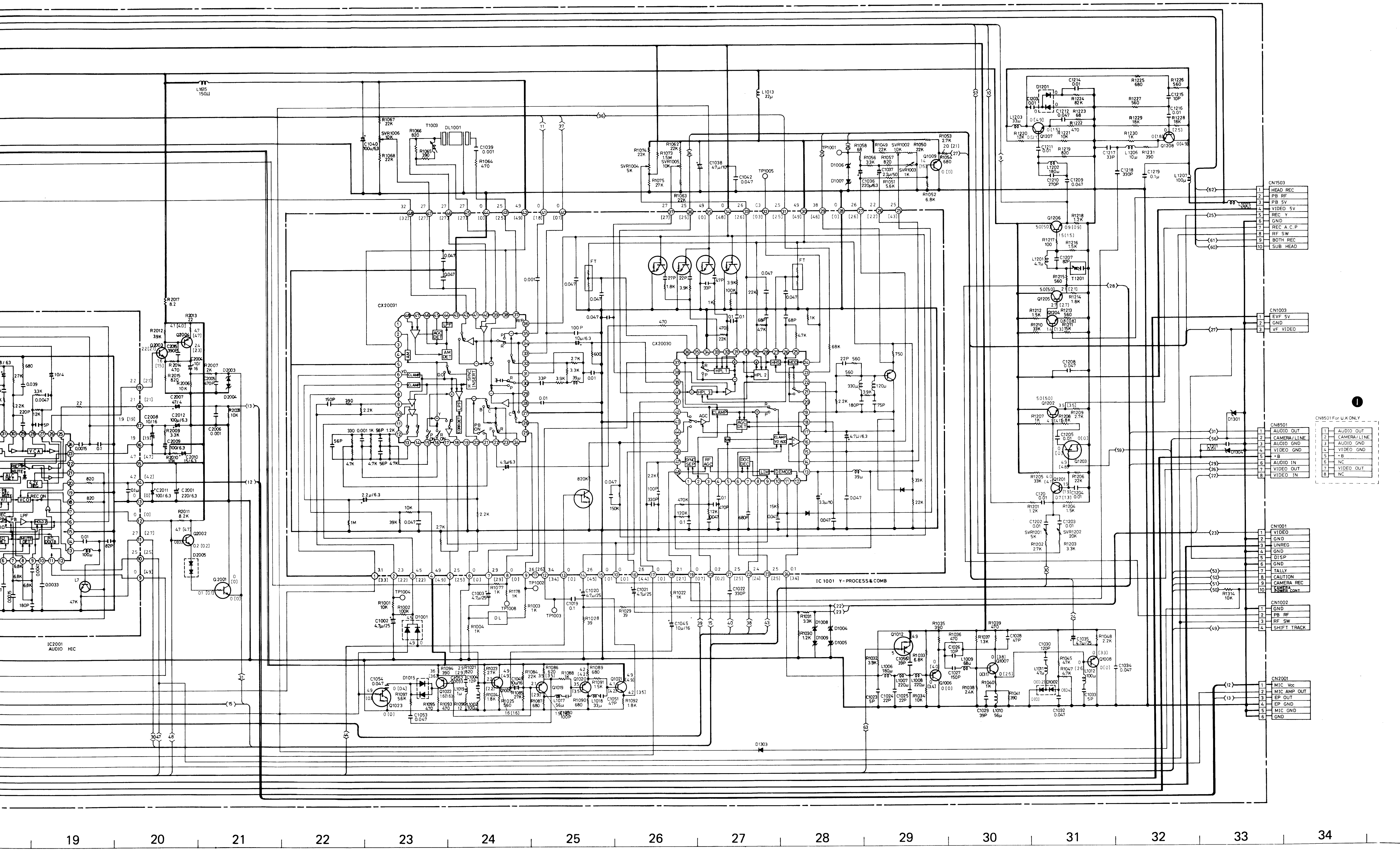

D4501
GL450
P
Y
MOTOR POWER
TAPE LED(-)

*a : REC MODE
[b]: PB MODE


K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
CN1004
REH (S)
REH (G)
REG GND
T1102 4.43MHz B.P.F.
IC1102 CX22021
LIMITER
L1402 220µ
R1157 2.2K
T1103 4.43MHz B.P.F.
IC1002 CXL5003M
CLAMP CIRCUIT
848 BIT SHIFT REGISTER
AUTOBIAS CIRCUIT
CLOCK DRIVERS
DUTY CONTROL CIRCUIT
AMP
S/H
(1BIT)
ref.
TP1007
TP1102
TP1103
IC1101 CX20032
IC1101 C-PROCESS
ACC AMP
ACC DET
BURST EMPHASIS
CHROMA CONV
CARRIER INVERT
CARRIER CONV
APC DET SW&AMP
APC DET
ACK DET
ACK
CHROMA INVERT
ID HOLD
375f H VCO
APC ID
AFC
VXO
X'TAL
F-F 8-fo
CN1006
SELECT 1
SELECT 2
CN4016
UNREG GND
UNREG
S/S 5V
GND
JOG VD
PS SW
REF V
SEL 1
SEL 2
REF PILOT
FEP
SEARCH
PB PILOT
BOTH REC
SUB HEAD
HEAD REC
RF SW
SHIFT TRACK
CN3004
SP/LP
CAMERA / LINE
VTR POW CONT
SYSTEM RESET
V A S/P STB
SO BUS
SCK BUS
DDC-1
DC IN
POWER CONT
EVF 5V
V/A 5V
VIDEO 9V
CN5001
CN1005
EVF TALLY
D5001 RD13M
F5001
F5002
C1055 1U/50V
IC1301 CX7991
AUDIO MUTE
TALLY
PON RESET
SO
SET
RESET
STB
SCK
VDD
VIDEO MUTE
CAUTION
CAMERA REC
CAM / LINE
PB
MP / ME
JOG
CAMERA POWER CONT
GND
Q1301
Q1302
Q1303
Q1304
Q1305
Q5001
Q5002
Q5003
IC1103 CX23054
SYNCHRO GATE
AFC ID(R)
APC ID(PB)
AFC (R)
1/8 DIVIDER
VARIABLE DIVIDER
DELAY PULSE GENERATOR
C SYNC
VARIABLE DIVIDER
INVERT
LATCH
H.H.K
MODE CONTROL
SW P
SEL 1
SEL 2
OUT
TP1101
T1104 3.7MBPF
T1105 5.17MBPF
IC 1104 CX 20117
P
SA
A P C CORRECTION
A / B
GCA
BURST ID DET
MAIN SW
SEQ DET
ACK
1/2fH
SB
SC
I²L CONTROL
SW CONTROL
PAL TIMING GENERATOR
AFC DET
VCO
-6dB
TP1105
TP1106
SVR1001 1K
SVR1102 50K
SVR1101 200K
D1014
D1101
D1102
D1103
D1104
Q1001
Q1002
Q1003
Q1004
Q1013
Q1015
Q1016
Q1017
Q1018
Q1101
Q1401
Q1402
CX20037A
T2001
D2001
D2002
C2002
R2001 47K
R2002 22K
R2004 1K
R2005 1K
C2003 001
25K303

VD-1 CIRCUIT

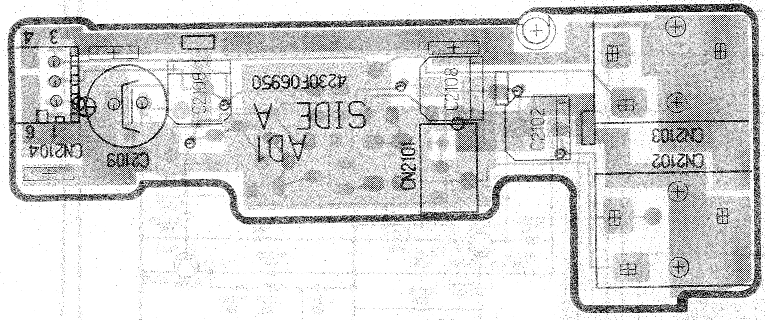

IC1002 CXL5003M
CLAMP CIRCUIT
848 BIT SHIFT REGISTER
AUTOBIAS CIRCUIT
AMP
S/H
(1BIT)
ref
TP1007
L1615 150μ
IC 1104 CX 20117
MAIN SW
A P C CORRECTION
BURST ID DET
SEQ DET
A / B
GCA
ACK
I²L CONTROL
SW CONTROL
PAL TIMING GENERATOR
AFC DET
VCO
3.7MBPF T1104
T 1105
5.17MBPF
TP1105
TP1106
SVR1102 50K
D1103
D1104
D1101
D1102
D1014
Q1016
Q1015
Q1017
Q1018
Q1001
Q1013
CX20037A
IC2001 AUDIO HIC
DET
VCA
ALC
LIM
VCO
REC ON
LPF
HOLD
MUTE
PB AMP
2SK303
T2001
D2001
D2002
Q2001
Q2002
Q2003
Q2004
D2003
D2004
D2005
CX20031
CX20030
T1003
DL1001
AGC DET
AM DET
H SYNC INSERT
CLAMP
LPF
ERROR
TP1004
TP1002
TP1003
TP1008
DL
D1001
D1015
Q1019
Q1020
Q1021
Q1022
Q1023
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26


IC1001 Y-PROCESS&COMB
IC2001 AUDIO HIC
CX20031
CX20030
T1003
DL1001
L1615 150μ
L1013 22μ
CN1503
1 HEAD REC
2 PB RF
3 PB 5V
4 VIDEO 5V
5 REC Y
6 GND
7 REC A.C.P
8 RF SW
9 BOTH REC
10 SUB HEAD
L1025 100μ
CN1003
1 EVF 5V
2 GND
3 VF VIDEO
CN8501
1 AUDIO OUT
2 CAMERA/LINE
3 AUDIO GND
4 VIDEO GND
5 +B
6 AUDIO IN
7 VIDEO OUT
8 VIDEO IN
CN8501 For U.K ONLY
1 AUDIO OUT
2 CAMERA/LINE
3 AUDIO GND
4 VIDEO GND
5 +B
6 NC
7 VIDEO OUT
8 NC
D1301
D1304
CN1001
1 VIDEO
2 GND
3 UNREG
4 GND
5 DISP
6 GND
7 TALLY
8 CAUTION
9 CAMERA REC
10 CAMERA POWER CONT
R1314 10K
CN1002
1 GND
2 PB RF
3 RF SW
4 SHIFT TRACK
CN2001
1 MIC Vcc
2 MIC AMP OUT
3 EP OUT
4 EP GND
5 MIC GND
6 GND
D1303
TP1001
TP1003
TP1004
TP1005
TP1008
AGC
AGC DET
AM DET
LPF
HPL 1
HPL 2
HPL 3
SYNC SEP
RF AGC
DOC DEC
LLIM
DEMOD
CLAMP
H SYNC INSERT
VCA
VCO
REC ON
HOLD
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34

K

AD-1 BOARD SIDE A

J

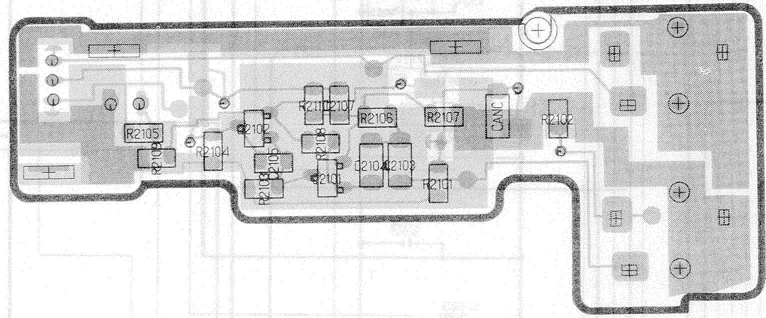

CN2104
C2109
C2108
4230F06950
AD1
SIDE A
CN2101
C2108
C2102
CN2103
CN2102

I

H

AD-1 BOARD SIDE B

G


R2105
R2103
R2104
Q2102
R2111
Q2107
R2106
R2107
CANC
R2102
R2108
Q2101
Q2104
Q2103
R2101

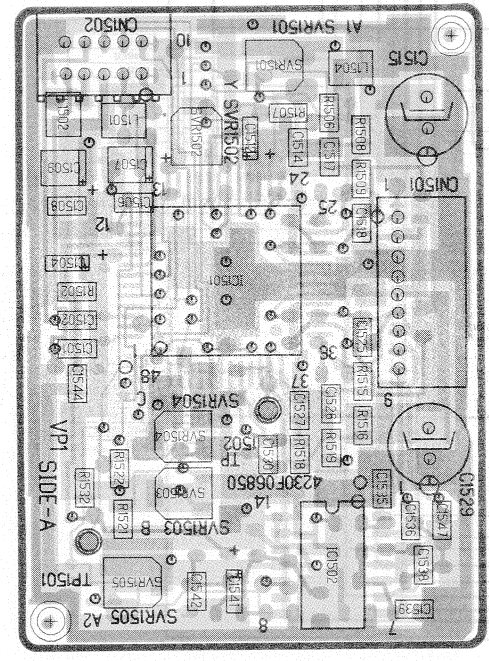
F

E

VP-1 BOARD SIDE A

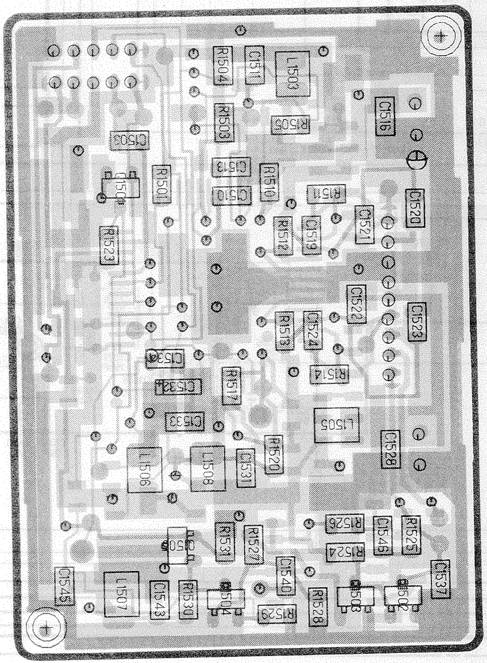
VP-1 BOARD SIDE B

D


CN1502
A1 SVR1501
10
1
SVR1501
L1504
C1515
Y SVR1502
L1501
C1507
R1507
R1506
C1514
R1508
C1517
24
CN1501
1
25
C1508
12
13
R1509
C1518
IC1501
C1504
R1502
C1502
C1501
C1544
48
36
37
C1525
R1515
9
SVR1504
C1527
R1526
R1516
VP1
SIDE-A
SVR1504
TP
IC1502
C1530
R1518
R1519
4230F06850
C1529
R1522
SVR1503
14
C1535
C1536
C1547
R1532
R1521
B SVR1503
TP1501
SVR1505
C1542
R1541
IC1502
C1538
C1539
A2 SVR1505
8
7

C

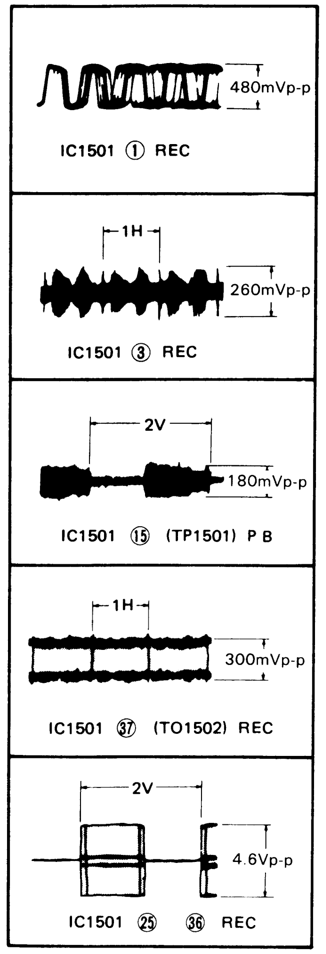
B


R1504
C1511
L1503
R1503
R1505
C1516
C1503
C1513
R1501
C1510
R1510
R1511
C1520
R1523
R1512
C1519
C1521
C1522
C1523
R1513
C1524
C1532
R1514
R1517
L1505
C1533
L1506
L1508
C1531
R1520
C1528
R1526
C1546
R1525
R1531
R1527
R1524
C1540
C1545
L1507
C1543
R1530
R1529
R1528
C1537

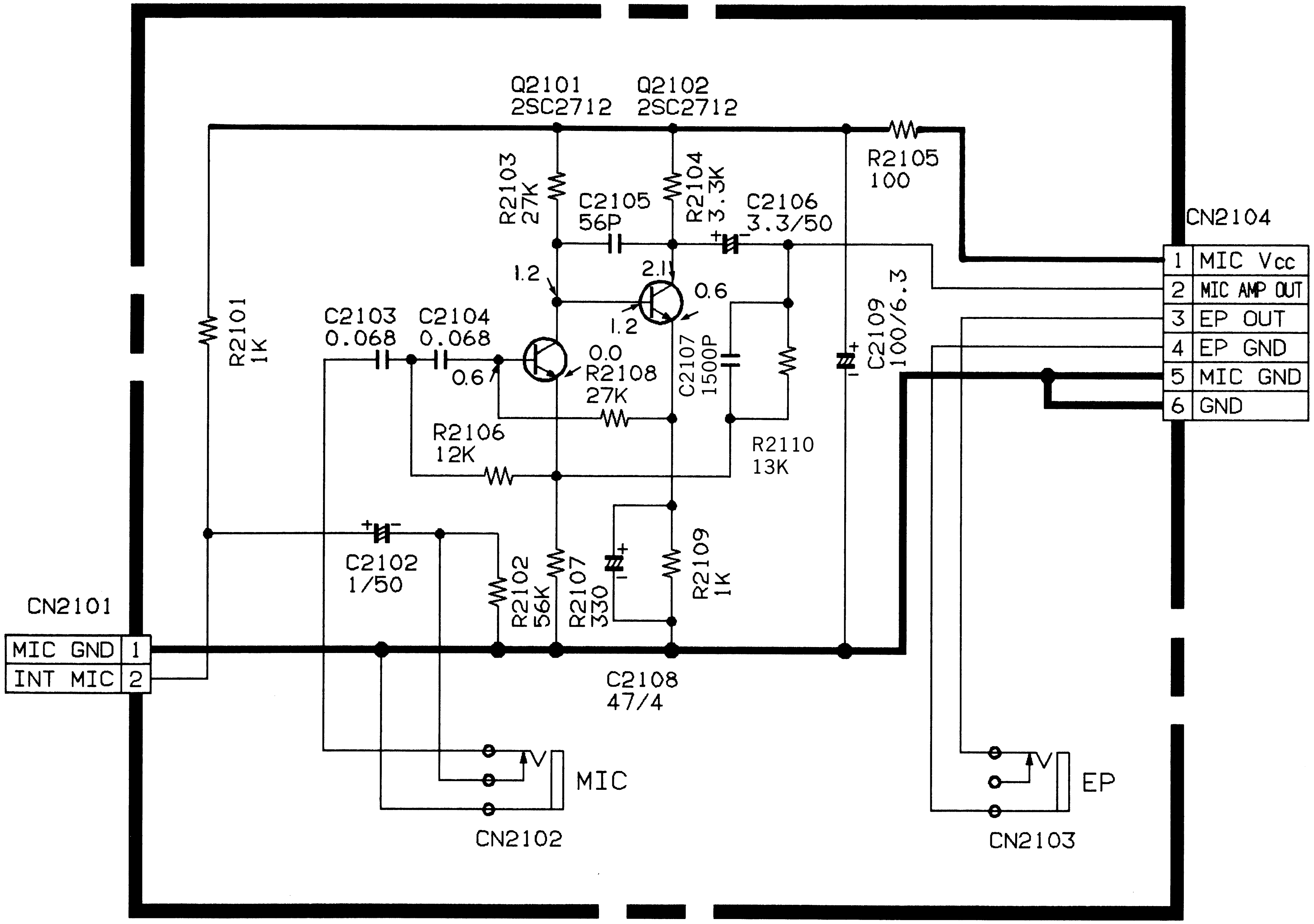
A

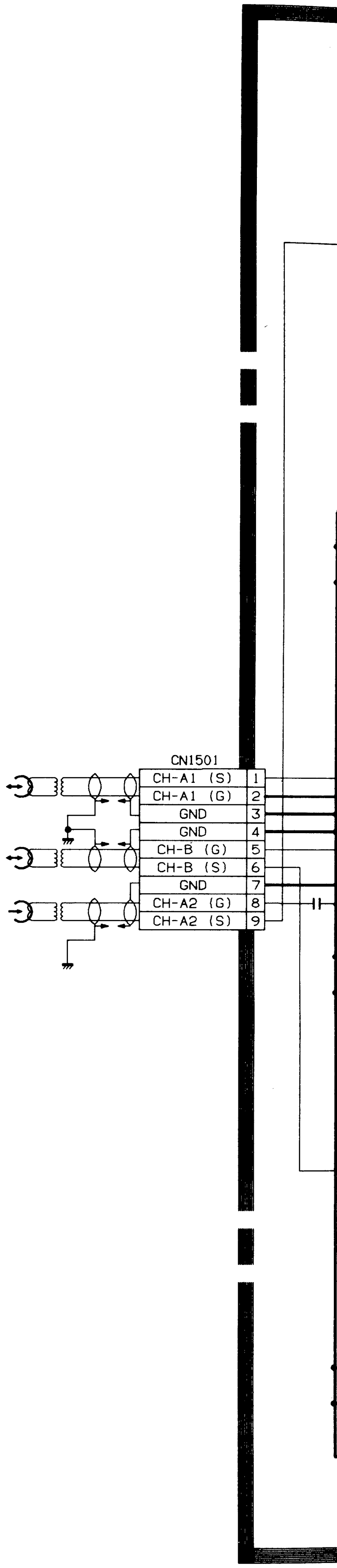
1 2 3 4 5 6 7 8

VP-1 BOARD (VIDEO PRE-AMP)



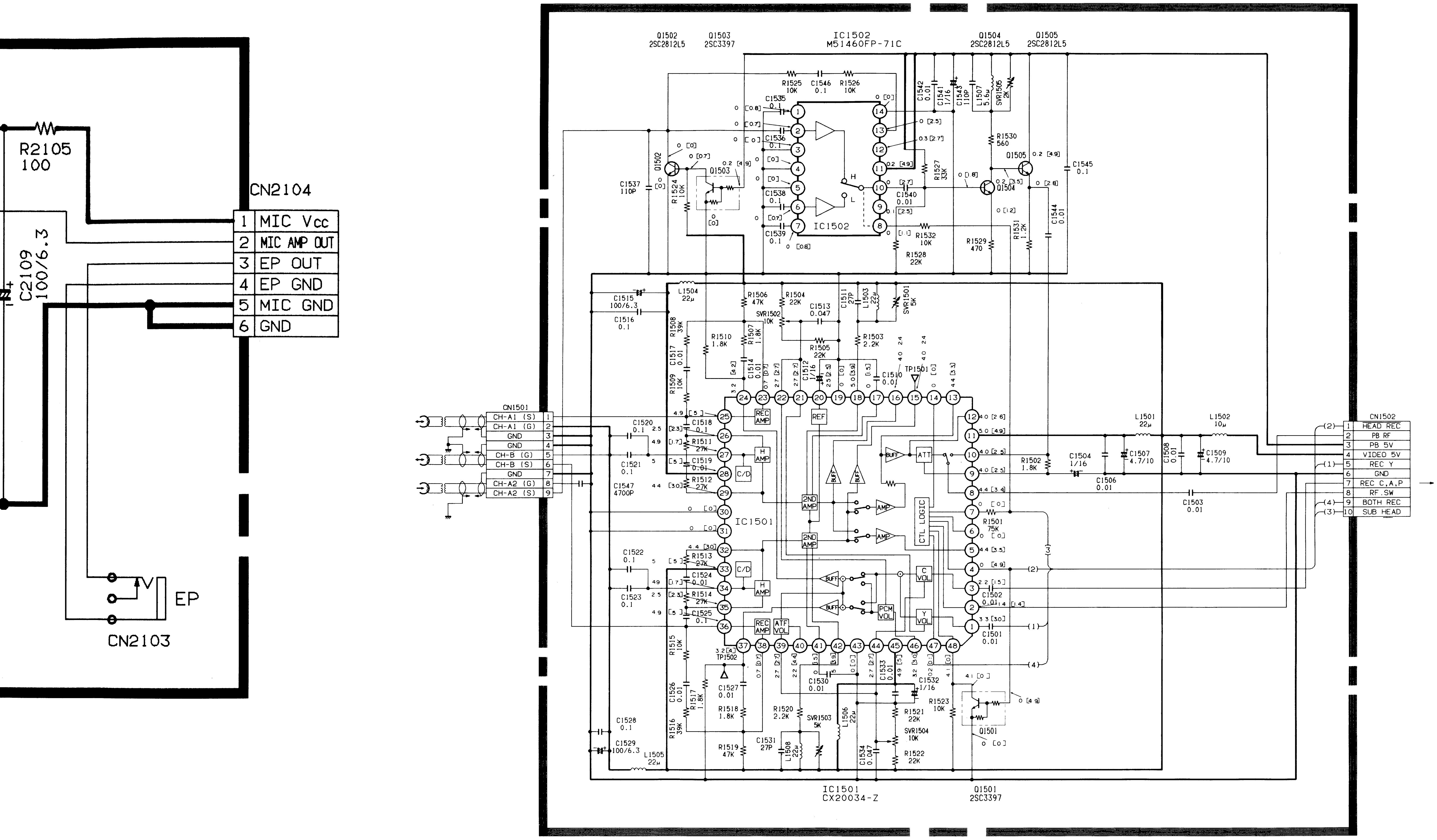
AD-1 CIRCUIT


Q2101
2SC2712
Q2102
2SC2712
R2105
100
R2103
27K
C2105
56P
R2104
3.3K
C2106
3.3/50
CN2104
1 MIC Vcc
2 MIC AMP OUT
3 EP OUT
4 EP GND
5 MIC GND
6 GND
1.2
2.1
0.6
1.2
R2101
1K
C2103
0.068
C2104
0.068
0.6
0.0
R2108
27K
C2107
1500P
C2109
100/6.3
R2106
12K
R2110
13K
C2102
1/50
R2102
56K
R2107
330
R2109
1K
CN2101
MIC GND 1
INT MIC 2
C2108
47/4
MIC
CN2102
EP
CN2103


CN1501
CH-A1 (S) 1
CH-A1 (G) 2
GND 3
GND 4
CH-B (G) 5
CH-B (S) 6
GND 7
CH-A2 (G) 8
CH-A2 (S) 9

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

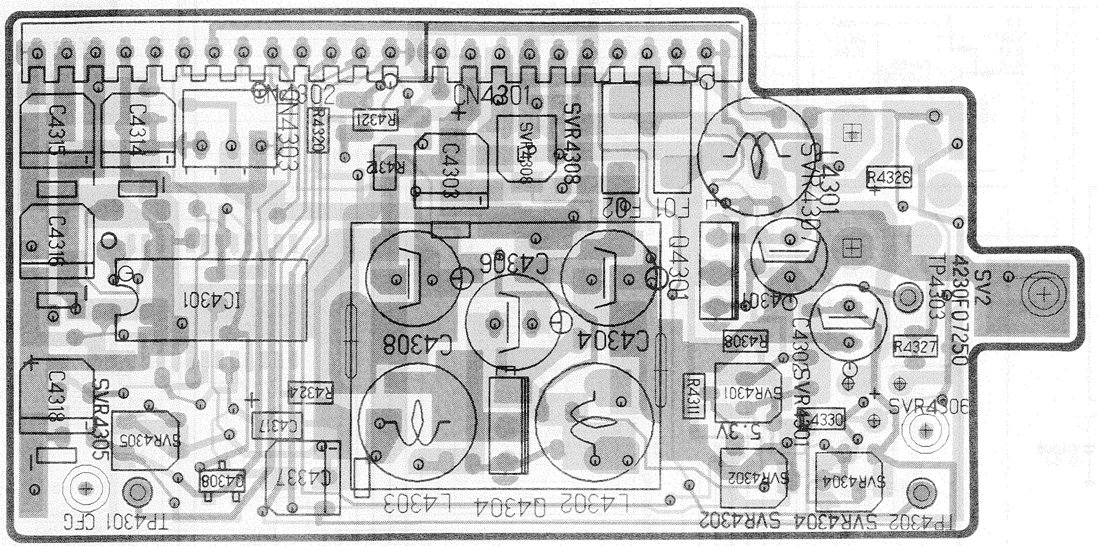
VP-1 CIRCUIT


R2105
100
CN2104
1 MIC Vcc
2 MIC AMP OUT
3 EP OUT
4 EP GND
5 MIC GND
6 GND
C2109
100/6.3
EP
CN2103
Q1502
2SC2812L5
Q1503
2SC3397
IC1502
M51460FP-71C
Q1504
2SC2812L5
Q1505
2SC2812L5
R1525
10K
C1546
0.1
R1526
10K
C1535
0.1
C1536
0.1
C1538
0.1
C1539
0.1
C1537
110P
R1524
10K
R1527
33K
C1540
0.01
R1532
10K
R1528
22K
C1542
0.01
C1541
1/16
C1543
110P
L1507
5.6μ
SVR1505
2K
R1530
560
C1545
0.1
R1529
470
R1531
1.2K
C1544
0.01
H
L
CN1501
CH-A1 (S)
CH-A1 (G)
GND
GND
CH-B (G)
CH-B (S)
GND
CH-A2 (G)
CH-A2 (S)
C1515
100/6.3
C1516
0.1
L1504
22μ
R1506
47K
R1504
22K
SVR1502
10K
C1513
0.047
C1511
27P
L1503
22μ
SVR1501
5K
R1508
39K
R1510
1.8K
R1507
1.8K
R1505
22K
R1503
2.2K
C1517
0.01
R1509
10K
C1514
0.01
C1512
1/16
C1510
0.01
TP1501
C1520
0.1
C1518
0.1
R1511
27K
C1521
0.1
C1519
0.01
R1512
27K
C1547
4700P
REC AMP
H AMP
C/D
REF
BUFF
ATT
2ND AMP
AMP
CTL LOGIC
IC1501
C1522
0.1
R1513
27K
C1524
0.01
C1523
0.1
R1514
27K
C1525
0.1
C VOL
PCM VOL
Y VOL
ATF VOL
R1515
10K
TP1502
R1501
75K
C1502
0.01
C1501
0.01
C1526
0.01
R1517
1.8K
C1527
0.01
R1518
1.8K
C1530
0.01
C1533
0.01
C1532
1/16
R1523
10K
R1520
2.2K
SVR1503
5K
R1521
22K
Q1501
C1528
0.1
C1529
100/6.3
R1516
39K
L1505
22μ
R1519
47K
C1531
27P
L1508
22μ
L1506
22μ
C1534
0.047
SVR1504
10K
R1522
22K
L1501
22μ
L1502
10μ
R1502
1.8K
C1504
1/16
C1507
4.7/10
C1508
0.01
C1509
4.7/10
C1506
0.01
C1503
0.01
CN1502
1 HEAD REC
2 PB RF
3 PB 5V
4 VIDEO 5V
5 REC Y
6 GND
7 REC C,A,P
8 RF.SW
9 BOTH REC
10 SUB HEAD
TO VD-1
IC1501
CX20034-Z
Q1501
2SC3397

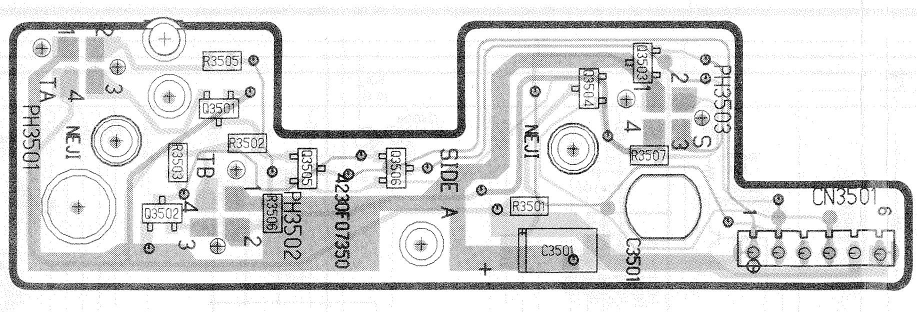
*a : REC MODE
[b] : PB MODE

19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34

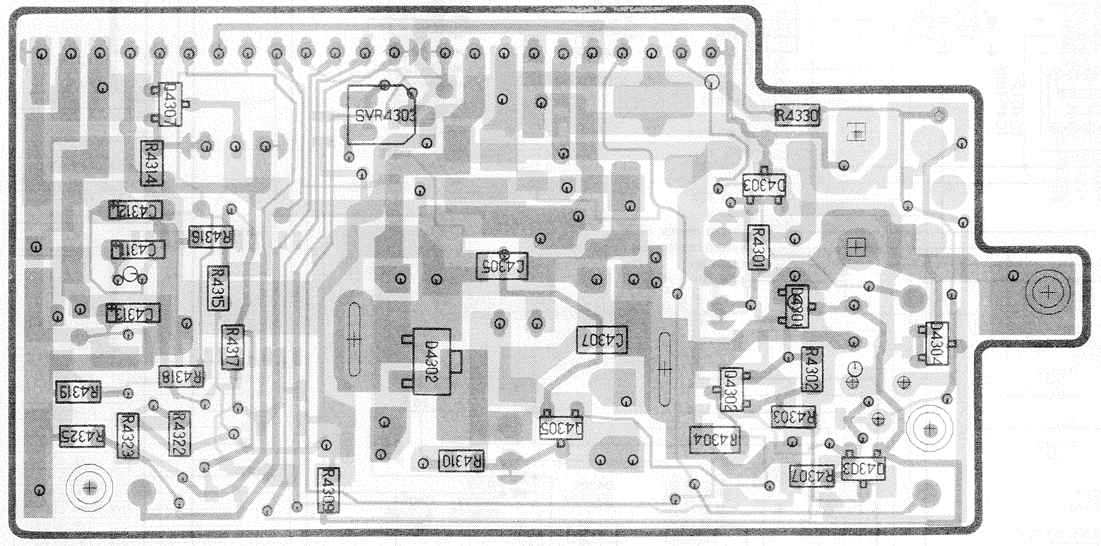
SV-2 BOARD SIDE A

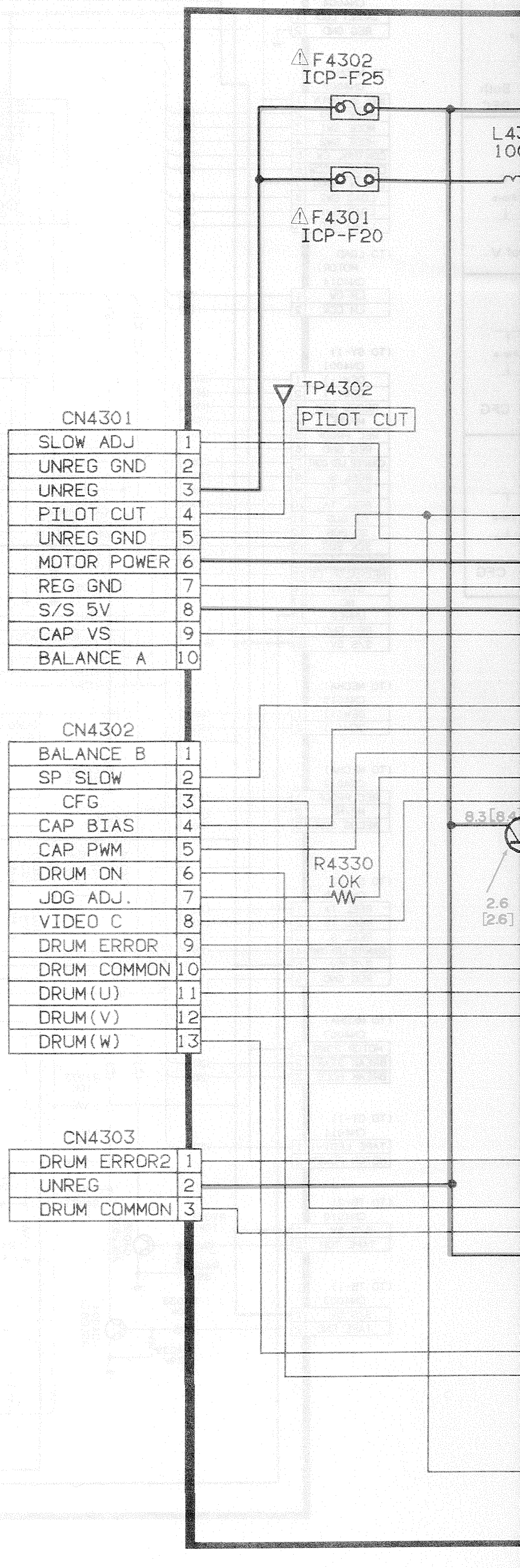

CN4301
CN4302
C4315
C4314
C4316
C4318
IC4301
C4308
C4306
C4304
C4303
Q4301
Q4304
F01
F02
SVR4308
SVR4305
SVR4306
SVR4301
SVR4302
SVR4304
R4326
R4327
R4308
R4311
R4330
TP4303
TP4302
TP4301 CFG
L4302
L4303
Q4304
5.3V
SV2
4230F07250

SV-3 BOARD SIDE A

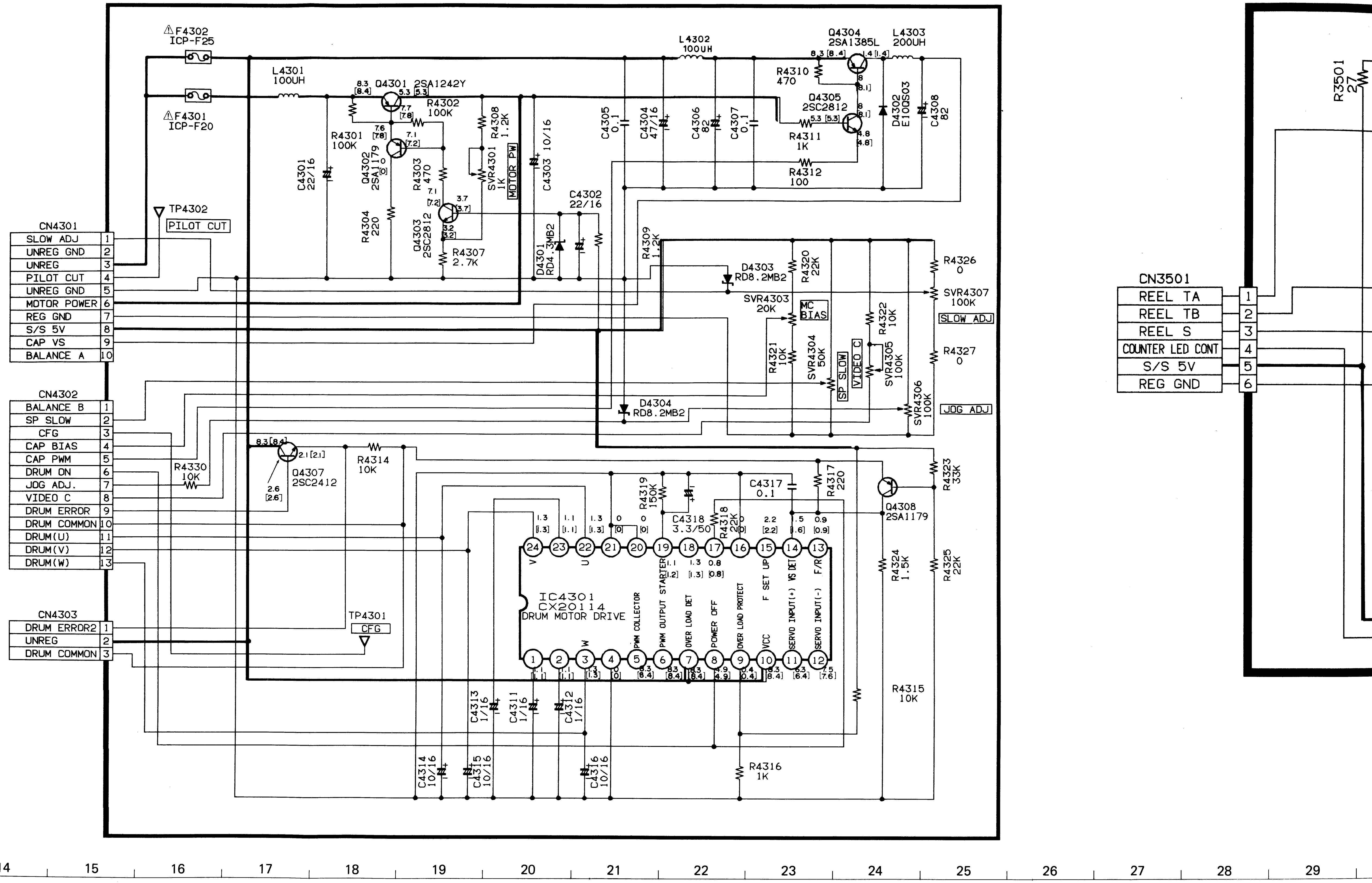

PH3501
PH3502
PH3503
TA
TB
NEJI
SIDE A
CN3501
R3505
Q3501
R3502
R3503
Q3502
R3506
R3507
R3501
C3501
Q3505
Q3506
Q3503
Q3504
4230F07350

SV-2 BOARD SIDE B

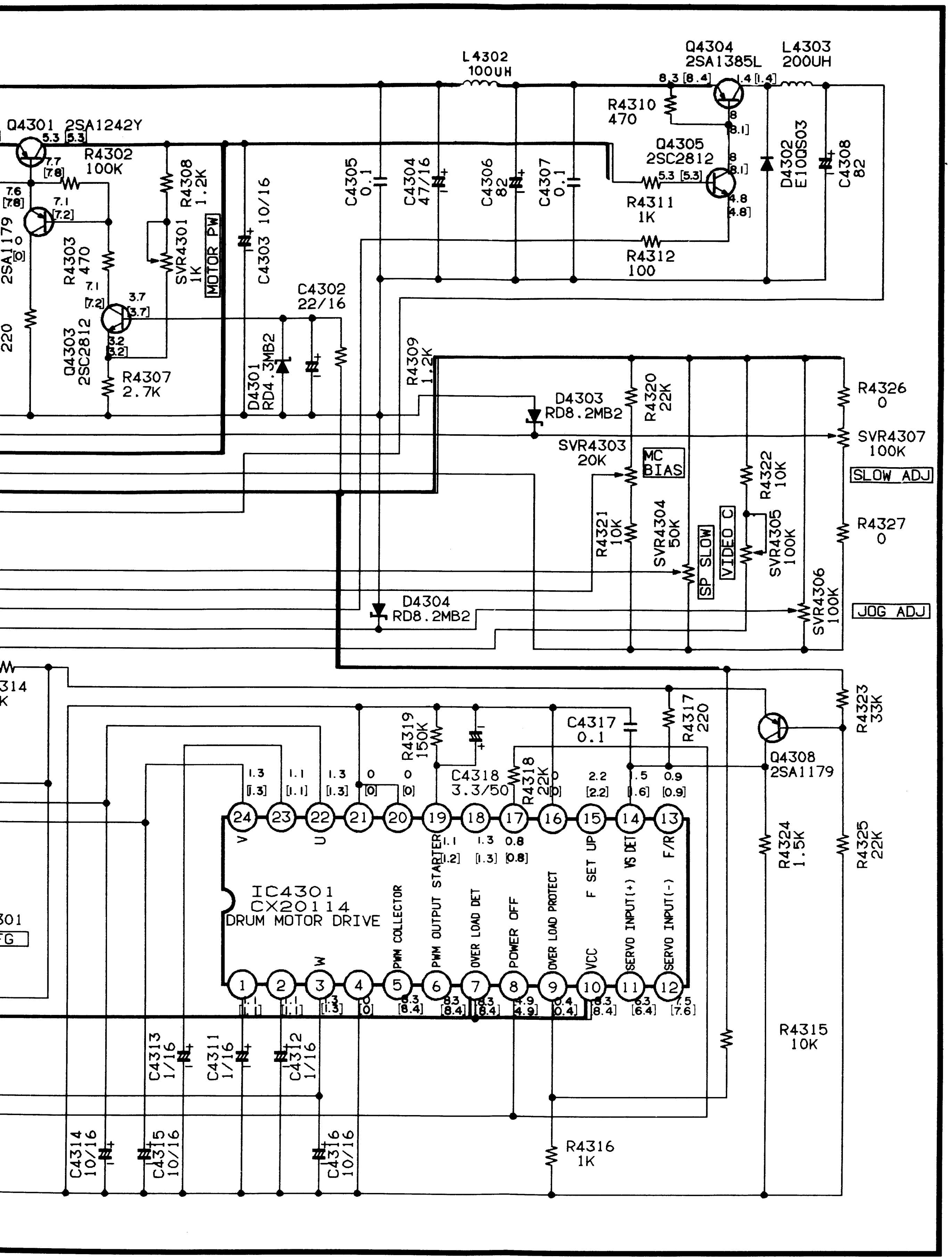

SVR4303
R4330
D4307
R4314
C4312
C4311
C4313
R4316
R4315
R4317
R4318
R4319
R4325
R4323
R4322
R4310
R4313
D4302
C4305
C4307
Q4305
D4303
R4301
D4301
D4304
R4302
R4303
R4304
R4307
D4306
Q4302


F4302
ICP-F25
F4301
ICP-F20
TP4302
PILOT CUT
CN4301
SLOW ADJ 1
UNREG GND 2
UNREG 3
PILOT CUT 4
UNREG GND 5
MOTOR POWER 6
REG GND 7
S/S 5V 8
CAP VS 9
BALANCE A 10
CN4302
BALANCE B 1
SP SLOW 2
CFG 3
CAP BIAS 4
CAP PWM 5
DRUM ON 6
JOG ADJ. 7
VIDEO C 8
DRUM ERROR 9
DRUM COMMON 10
DRUM(U) 11
DRUM(V) 12
DRUM(W) 13
CN4303
DRUM ERROR2 1
UNREG 2
DRUM COMMON 3
R4330
10K
2.6
[2.6]

SV-2 CIRCUITSV-3

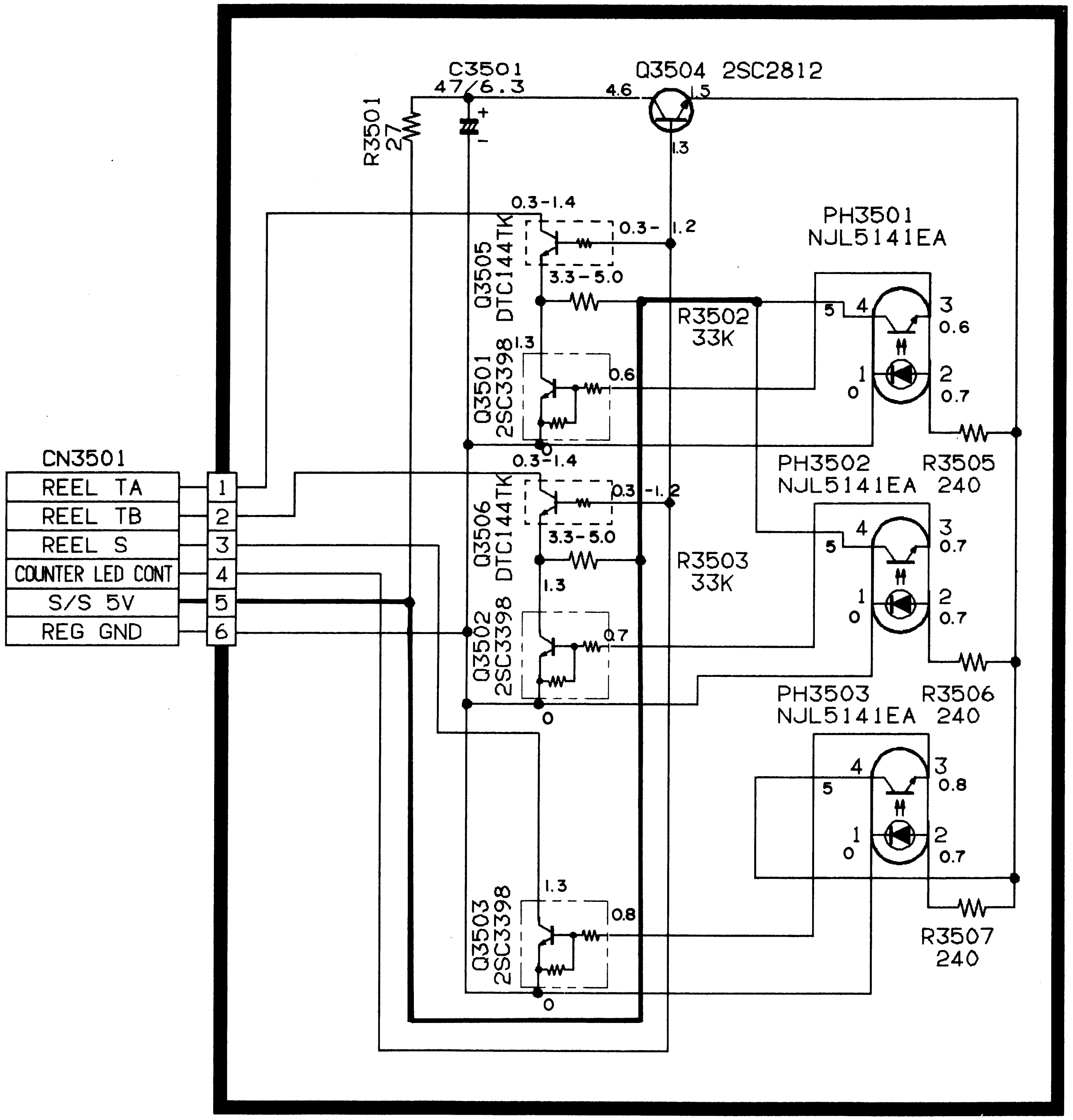

F4302
ICP-F25
F4301
ICP-F20
L4301
100UH
Q4301 2SA1242Y
R4302 100K
R4301 100K
Q4302 2SA1179
R4303 470
R4304 220
Q4303 2SC2812
R4307 2.7K
SVR4301 1K
MOTOR PW
R4308 1.2K
C4301 22/16
C4303 10/16
C4302 22/16
D4301 RD4.3MB2
TP4302
PILOT CUT
L4302
100UH
Q4304
2SA1385L
L4303
200UH
R4310 470
Q4305
2SC2812
R4311 1K
R4312 100
D4302 E10QS03
C4308 82
C4305 0.1
C4304 47/16
C4306 82
C4307 0.1
R4309 1.2K
D4303 RD8.2MB2
R4320 22K
SVR4303 20K
MC BIAS
R4321 10K
SVR4304 50K
SP SLOW
VIDEO C
R4322 10K
SVR4305 100K
SVR4306 100K
R4326 0
SVR4307 100K
SLOW ADJ
R4327 0
JOG ADJ
D4304 RD8.2MB2
CN4301
1 SLOW ADJ
2 UNREG GND
3 UNREG
4 PILOT CUT
5 UNREG GND
6 MOTOR POWER
7 REG GND
8 S/S 5V
9 CAP VS
10 BALANCE A
CN4302
1 BALANCE B
2 SP SLOW
3 CFG
4 CAP BIAS
5 CAP PWM
6 DRUM ON
7 JOG ADJ.
8 VIDEO C
9 DRUM ERROR
10 DRUM COMMON
11 DRUM(U)
12 DRUM(V)
13 DRUM(W)
CN4303
1 DRUM ERROR2
2 UNREG
3 DRUM COMMON
R4330 10K
Q4307 2SC2412
R4314 10K
TP4301
CFG
IC4301
CX20114
DRUM MOTOR DRIVE
V
U
W
PWM COLLECTOR
PWM OUTPUT STARTER
OVER LOAD DET
POWER OFF
OVER LOAD PROTECT
VCC
F SET UP
SERVO INPUT(+)
VS DET
SERVO INPUT(-)
F/R
R4319 150K
C4318 3.3/50
R4318 22K
C4317 0.1
R4317 220
Q4308 2SA1179
R4323 33K
R4324 1.5K
R4325 22K
R4315 10K
R4316 1K
C4313 1/16
C4311 1/16
C4312 1/16
C4314 10/16
C4315 10/16
C4316 10/16
CN3501
1 REEL TA
2 REEL TB
3 REEL S
4 COUNTER LED CONT
5 S/S 5V
6 REG GND
R3501 27
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29

SV-2 CIRCUITSV-3



Q4301 2SA1242Y
R4302 100K
R4308 1.2K
SVR4301 1K
MOTOR PW
2SA1179
R4303 470
Q4303 2SC2812
R4307 2.7K
D4301 RD4.3MB2
C4303 10/16
C4302 22/16
C4305 0.1
C4304 47/16
L4302 100UH
C4306 82
C4307 0.1
Q4304 2SA1385L
L4303 200UH
R4310 470
Q4305 2SC2812
R4311 1K
R4312 100
D4302 E10QS03
C4308 82
R4309 1.2K
D4303 RD8.2MB2
R4320 22K
R4326 0
SVR4303 20K
MC BIAS
SVR4307 100K
SLOW ADJ
R4322 10K
R4321 10K
SVR4304 50K
SP SLOW
VIDEO C
SVR4305 100K
R4327 0
D4304 RD8.2MB2
SVR4306 100K
JOG ADJ
R4319 150K
C4318 3.3/50
R4318 22K
C4317 0.1
R4317 220
Q4308 2SA1179
R4323 33K
IC4301
CX20114
DRUM MOTOR DRIVE
V
U
W
STARTER
PWM OUTPUT
PWM COLLECTOR
OVER LOAD DET
POWER OFF
OVER LOAD PROTECT
F SET UP
VCC
VS DET
SERVO INPUT(+)
F/R
SERVO INPUT(-)
R4324 1.5K
R4325 22K
C4313 1/16
C4311 1/16
C4312 1/16
R4315 10K
C4314 10/16
C4315 10/16
C4316 10/16
R4316 1K

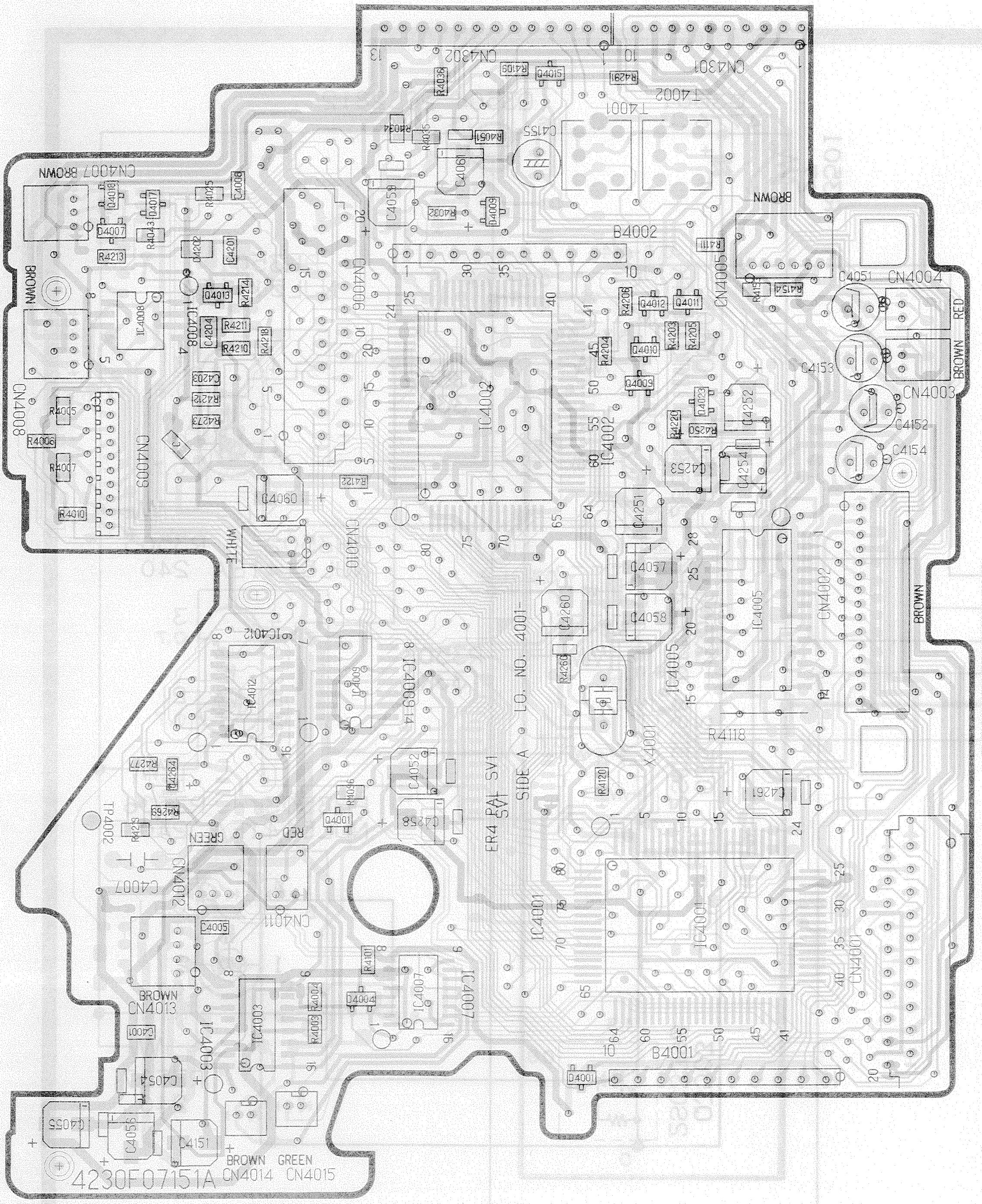
SV-3 CIRCUIT



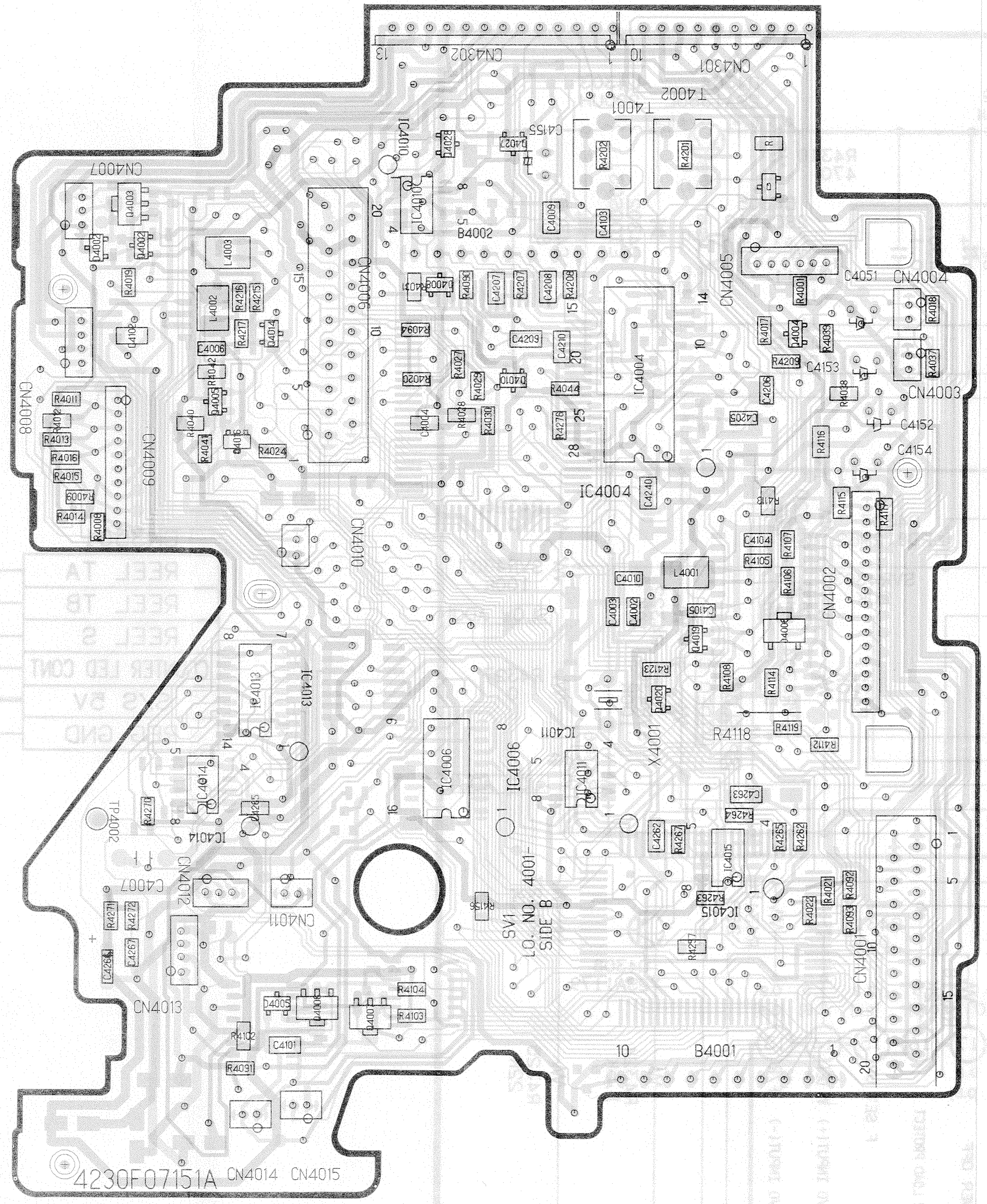
C3501 47/6.3
Q3504 2SC2812
R3501 27
Q3505 DTC144TK
Q3501 2SC3398
Q3506 DTC144TK
Q3502 2SC3398
Q3503 2SC3398
R3502 33K
R3503 33K
PH3501 NJL5141EA
PH3502 NJL5141EA
PH3503 NJL5141EA
R3505 240
R3506 240
R3507 240
CN3501
1 REEL TA
2 REEL TB
3 REEL S
4 COUNTER LED CONT
5 S/S 5V
6 REG GND

*a : REC MODE
[b] : PB MODE

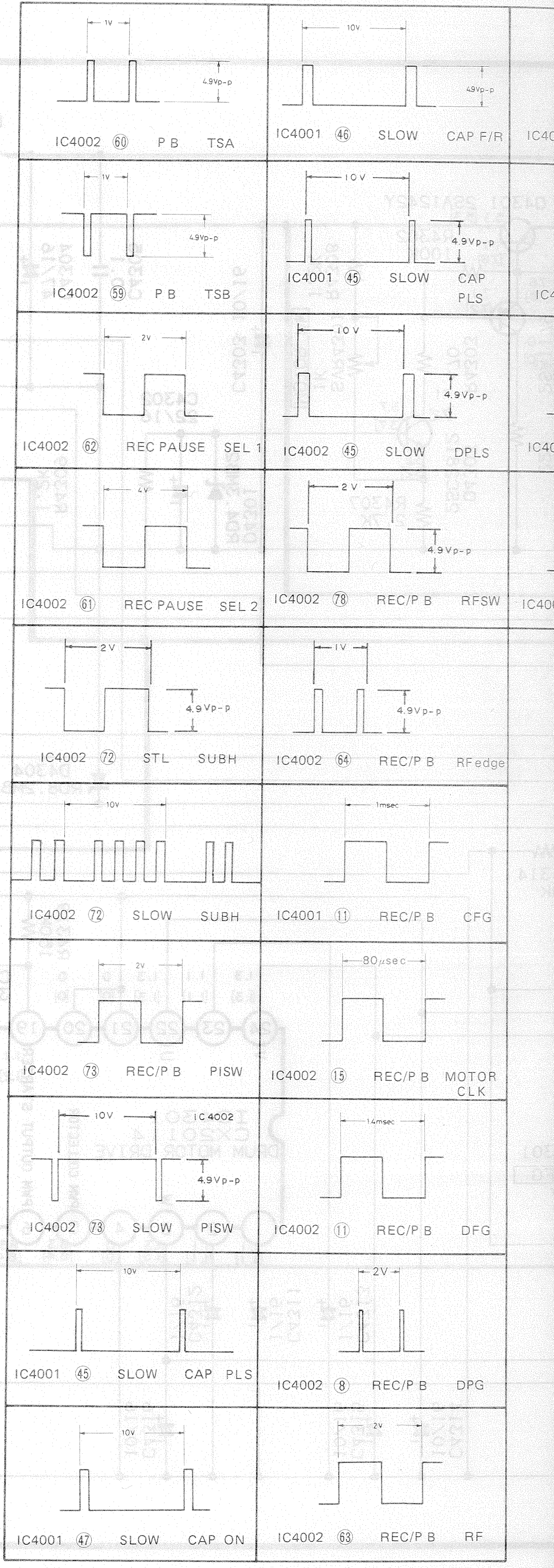
SV-1 BOARD SIDE A


CN4302
CN4301
T4001
T4002
B4002
CN4007 BROWN
CN4008
CN4009
CN4010
IC4002
IC4005
IC4006
IC4012
IC4013
CN4005
CN4004
CN4003
C4051
C4152
C4153
C4154
BROWN
RED
CN4002
X4001
R4118
ER4 PAL SV1
SIDE A
I.Q. NO. 4001
TP4002
GREEN
RED
CN4012
CN4011
CN4007
CN4013
BROWN
IC4001
IC4003
IC4007
B4001
CN4001
BROWN GREEN
CN4014 CN4015
4230F07151A

SV-1 BOARD SIDE B

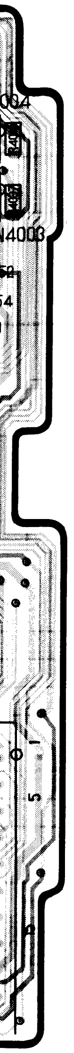

CN4302
CN4301
T4001
T4002
IC4010
B4002
CN4007
CN4006
CN4008
CN4009
CN4010
IC4004
CN4005
CN4004
CN4003
C4051
C4152
C4153
C4154
L4001
CN4002
X4001
R4118
IC4011
IC4013
IC4014
IC4006
TP4002
CN4012
CN4011
CN4013
SV1
I.Q. NO. 4001
SIDE B
IC4015
CN4001
B4001
4230F07151A
CN4014 CN4015

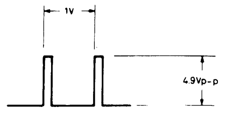
SV-1 BOARD (SERVO)


1V
4.9Vp-p
IC4002 ⑥⓪ P B TSA
10V
4.9Vp-p
IC4001 ④⑥ SLOW CAP F/R
1V
4.9Vp-p
IC4002 ⑤⑨ P B TSB
10V
4.9Vp-p
IC4001 ④⑤ SLOW CAP PLS
2V
IC4002 ⑥② REC PAUSE SEL 1
10V
4.9Vp-p
IC4002 ④⑤ SLOW DPLS
4V
IC4002 ⑥① REC PAUSE SEL 2
2V
4.9Vp-p
IC4002 ⑦⑧ REC/P B RFSW
2V
4.9Vp-p
IC4002 ⑦② STL SUBH
1V
4.9Vp-p
IC4002 ⑥④ REC/P B RFedge
10V
IC4002 ⑦② SLOW SUBH
1msec
IC4001 ⑪ REC/P B CFG
2V
IC4002 ⑦③ REC/P B PISW
80μsec
IC4002 ⑮ REC/P B MOTOR CLK
10V
IC4002
4.9Vp-p
IC4002 ⑦③ SLOW PISW
1.4msec
IC4002 ⑪ REC/P B DFG
10V
IC4001 ④⑤ SLOW CAP PLS
2V
IC4002 ⑧ REC/P B DPG
10V
IC4001 ④⑦ SLOW CAP ON
2V
IC4002 ⑥③ REC/P B RF

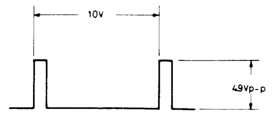
SV-1 BOARD (SERVO)

SV-1 CIRCUIT

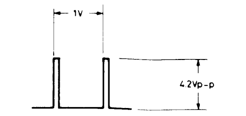




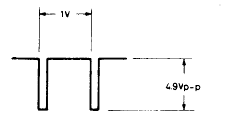
IC4002 (60) P B TSA



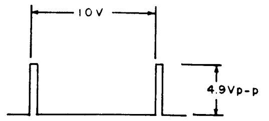
IC4001 ㊻ SLOW CAP F/R



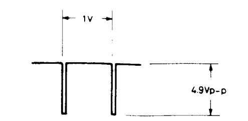
IC4002 ㉓ REC/P B Both REC



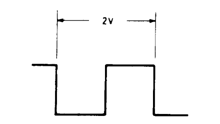
IC4002 (59) P B TSB



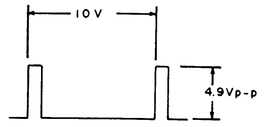
IC4001 ㊺ SLOW CAP PLS



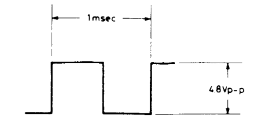
IC4002 ⑳ REC Ref V



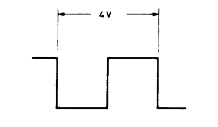
IC4002 (62) REC PAUSE SEL 1



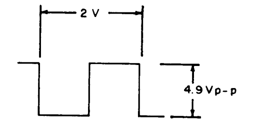
IC4002 ㊺ SLOW DPLS



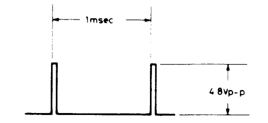
IC4001 ⑪ REC/P B CFG



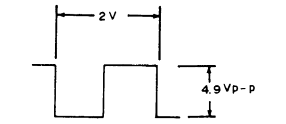
IC4002 (61) REC PAUSE SEL 2



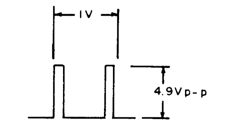
IC4002 (78) REC/P B RFSW



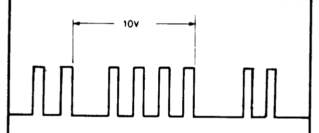
IC4001 ⑪ CUE/REV CFG



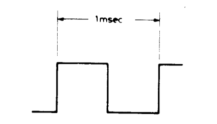
IC4002 (72) STL SUBH



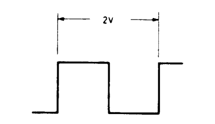
IC4002 (64) REC/P B RFedge



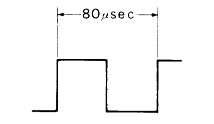
IC4002 (72) SLOW SUBH



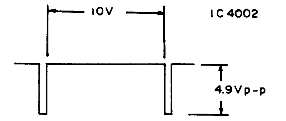
IC4001 ⑪ REC/P B CFG



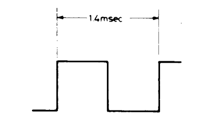
IC4002 (73) REC/P B PISW



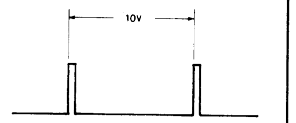
IC4002 ⑮ REC/P B MOTOR CLK



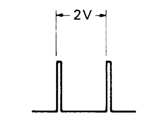
IC4002 (73) SLOW PISW



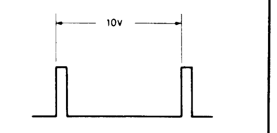
IC4002 ⑪ REC/P B DFG



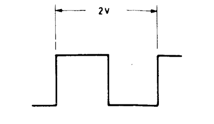
IC4001 ㊺ SLOW CAP PLS



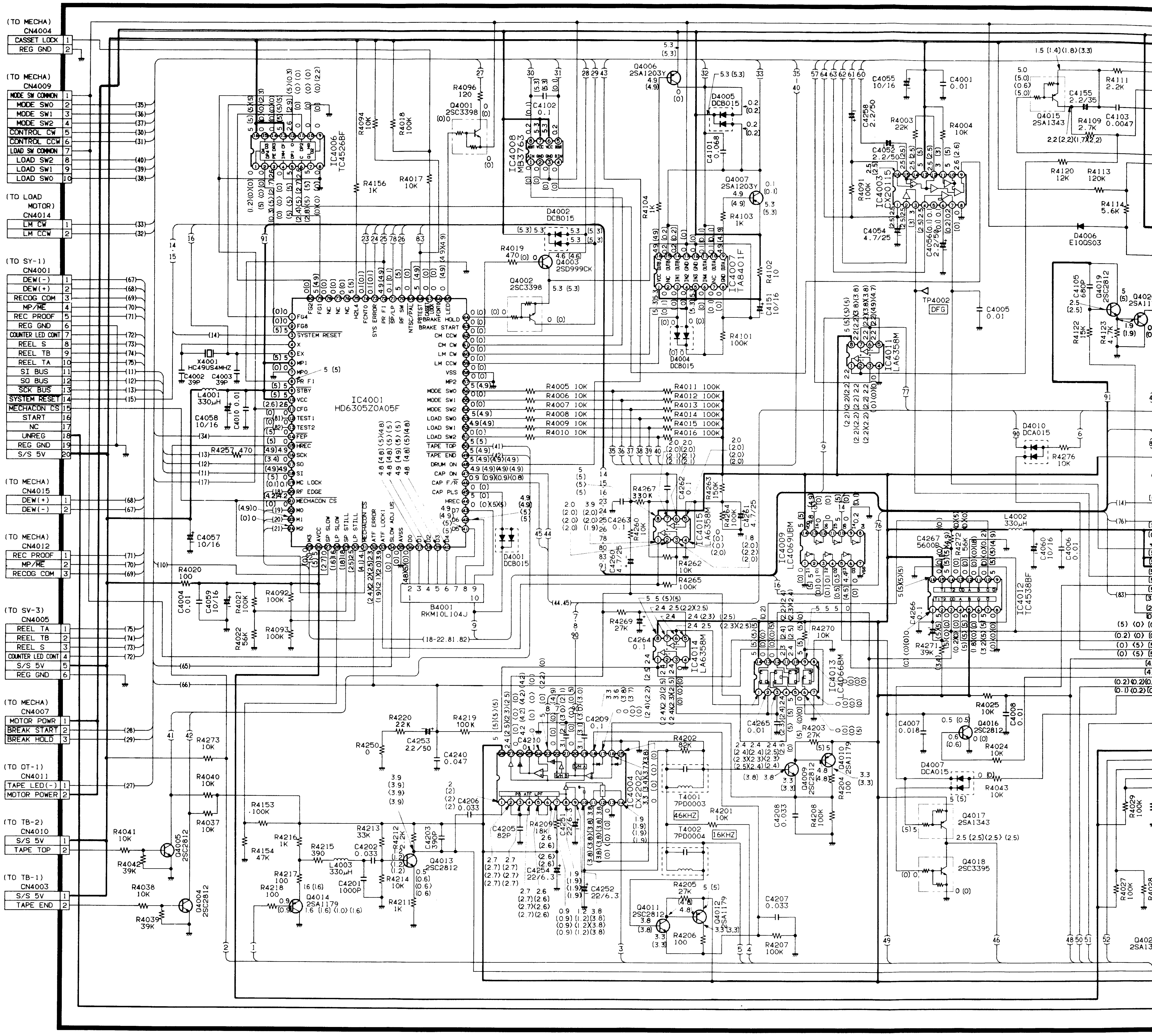
IC4002 ⑧ REC/P B DPG



IC4001 ㊼ SLOW CAP ON

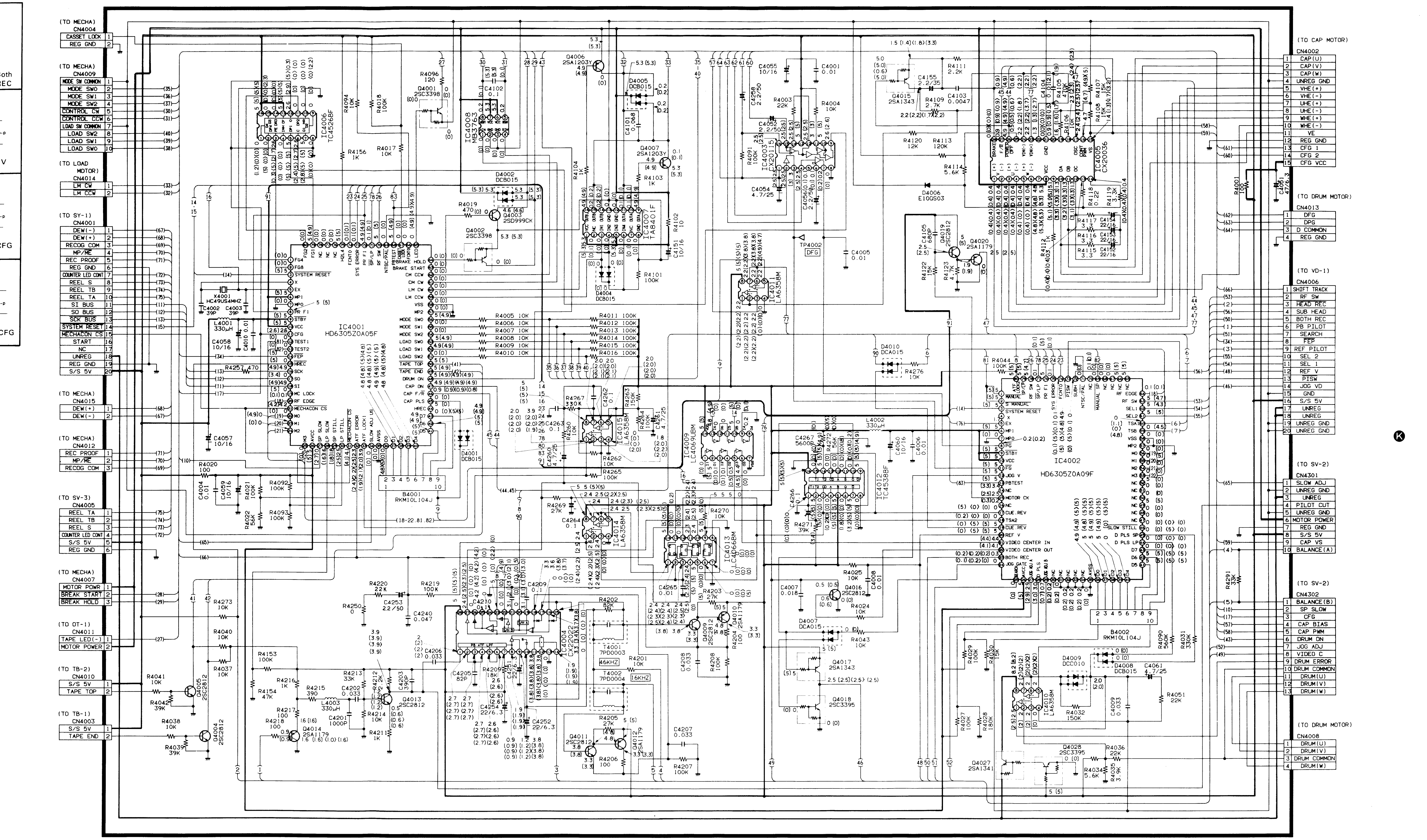


IC4002 (63) REC/P B RF


(TO MECHA) CN4004
CASSET LOCK
REG GND
(TO MECHA) CN4009
MODE SW COMMON
MODE SW0
MODE SW1
MODE SW2
CONTROL CW
CONTROL CCW
LOAD SW COMMON
LOAD SW2
LOAD SW1
LOAD SW0
(TO LOAD MOTOR) CN4014
LM CW
LM CCW
(TO SY-1) CN4001
DEW(-)
DEW(+)
RECOG COM
MP/ME
REC PROOF
REG GND
COUNTER LED CONT
REEL S
REEL TB
REEL TA
SI BUS
SO BUS
SCK BUS
SYSTEM RESET
MECHACON CS
START
NC
UNREG
REG GND
S/S 5V
(TO MECHA) CN4015
DEW(+)
DEW(-)
(TO MECHA) CN4012
REC PROOF
MP/ME
RECOG COM
(TO SV-3) CN4005
REEL TA
REEL TB
REEL S
COUNTER LED CONT
S/S 5V
REG GND
(TO MECHA) CN4007
MOTOR POWR
BREAK START
BREAK HOLD
(TO OT-1) CN4011
TAPE LED(-)
MOTOR POWER
(TO TB-2) CN4010
S/S 5V
TAPE TOP
(TO TB-1) CN4003
S/S 5V
TAPE END
IC4001 HD6305Z0A05F
IC4006 TC4526BF
IC4008 MB3763
IC4007 TA8401F
IC4003 CX20115
IC4011 LA6358M
IC4015 LA6358M
IC4014 LA6358M
IC4009 LC4069UBM
IC4013 LC4066BM
IC4012 TC4538BF
IC4004 CX22022
B4001 RKM10L104J
X4001 HC49US4MHZ
T4001 7PD0003 46KHZ
T4002 7PD0004 16KHZ
Q4001 2SC3398
Q4002 2SC3398
Q4003 2SD999CK
Q4004 2SC2812
Q4005 2SC2812
Q4006 2SA1203Y
Q4007 2SA1203Y
Q4009 2SC2812
Q4010 2SA1179
Q4011 2SC2812
Q4012 2SA1179
Q4013 2SC2812
Q4014 2SA1179
Q4015 2SA1343
Q4016 2SC2812
Q4017 2SA1343
Q4018 2SC3395
D4001 DCB015
D4002 DCB015
D4004 DCB015
D4005 DCB015
D4006 E10QS03
D4007 DCA015
D4010 DCA015
L4001 330μH
L4002 330μH
L4003 330μH
TP4002 DFG

13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

SV-1 CIRCUIT

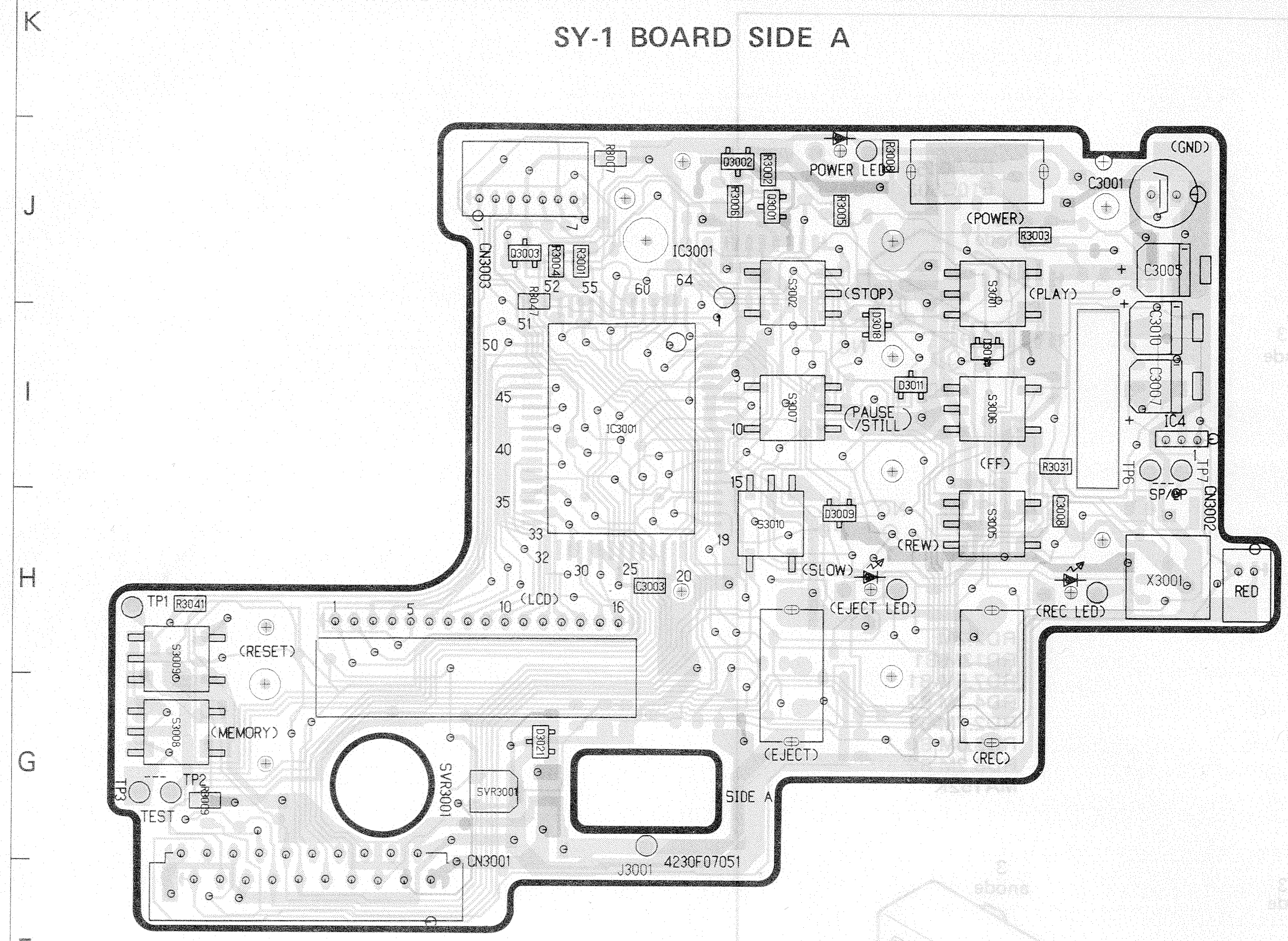

(TO MECHA)
CN4004
CASSET LOCK
REG GND
(TO MECHA)
CN4009
MODE SW COMMON
MODE SW0
MODE SW1
MODE SW2
CONTROL CW
CONTROL CCW
LOAD SW COMMON
LOAD SW2
LOAD SW1
LOAD SW0
(TO LOAD MOTOR)
CN4014
LM CW
LM CCW
(TO SY-1)
CN4001
DEW(-)
DEW(+)
RECOG COM
MP/ME
REC PROOF
REG GND
COUNTER LED CONT
REEL S
REEL TB
REEL TA
SI BUS
SO BUS
SCK BUS
SYSTEM RESET
MECHACON CS
START
NC
UNREG
REG GND
S/S 5V
(TO MECHA)
CN4015
DEW(+)
DEW(-)
(TO MECHA)
CN4012
REC PROOF
MP/ME
RECOG COM
(TO SV-3)
CN4005
REEL TA
REEL TB
REEL S
COUNTER LED CONT
S/S 5V
REG GND
(TO MECHA)
CN4007
MOTOR POWR
BREAK START
BREAK HOLD
(TO OT-1)
CN4011
TAPE LED(-)
MOTOR POWER
(TO TB-2)
CN4010
S/S 5V
TAPE TOP
(TO TB-1)
CN4003
S/S 5V
TAPE END
IC4006
TC4526BF
IC4008
HD14053BF
IC4001
HD6305Z0A05F
X4001
HC49US4MHZ
Q4001
2SC3398
Q4002
2SC3398
Q4003
2SD999CK
D4002
DCB015
D4001
DCB015
B4001
RKM10L104J
Q4006
2SA1203Y
Q4007
2SA1203Y
D4005
DCB015
D4004
DCB015
IC4007
TA8401F
IC4015
LA6358M
IC4014
LA6358M
IC4009
LC4066UBM
IC4013
LC4066BM
IC4003
CX20115
IC4011
LA6358M
IC4004
CX20222
T4001
7PD0003
46KHZ
T4002
7PD0004
16KHZ
Q4005
2SC2812
Q4004
2SC2812
Q4013
2SC2812
Q4014
2SA1179
Q4011
2SC2812
Q4012
2SA1179
Q4009
2SC2812
Q4010
2SA1179
Q4015
2SA1343
D4006
E10QS03
TP4002
DFG
D4010
DCA015
IC4012
TC4538BF
Q4016
2SC2812
D4007
DCA015
Q4017
2SA1343
Q4018
2SC3395
Q4019
2SC2812
Q4020
2SA1179
IC4005
CX20036
IC4002
HD6305Z0A09F
B4002
RKM10L104J
D4009
DCC010
D4008
DCB015
IC4010
LA6358M
Q4027
2SA1341
Q4028
2SC3395
(TO CAP MOTOR)
CN4002
CAP(U)
CAP(V)
CAP(W)
UNREG GND
VHE(+)
VHE(-)
UHE(+)
UHE(-)
WHE(+)
WHE(-)
VE
REG GND
CFG 1
CFG 2
CFG VCC
(TO DRUM MOTOR)
CN4013
DFG
DPG
D COMMON
REG GND
(TO VD-1)
CN4006
SHIFT TRACK
RF SW
HEAD REC
SUB HEAD
BOTH REC
PB PILOT
SEARCH
FEP
REF PILOT
SEL 2
SEL 1
REF V
PISW
JOG VD
GND
S/S 5V
UNREG
UNREG
UNREG GND
UNREG GND
(TO SV-2)
CN4301
SLOW ADJ
UNREG GND
UNREG
PILOT CUT
UNREG GND
MOTOR POWER
REG GND
S/S 5V
CAP VS
BALANCE(A)
(TO SV-2)
CN4302
BALANCE(B)
SP SLOW
CFG
CAP BIAS
CAP PWM
DRUM ON
JOG ADJ
VIDEO C
DRUM ERROR
DRUM COMMON
DRUM(U)
DRUM(V)
DRUM(W)
(TO DRUM MOTOR)
CN4008
DRUM(U)
DRUM(V)
DRUM COMMON
DRUM(W)
K

*a : REC MODE 〈c〉 : SLOW MODE
[b] :PB MODE (d) : CUE MODE

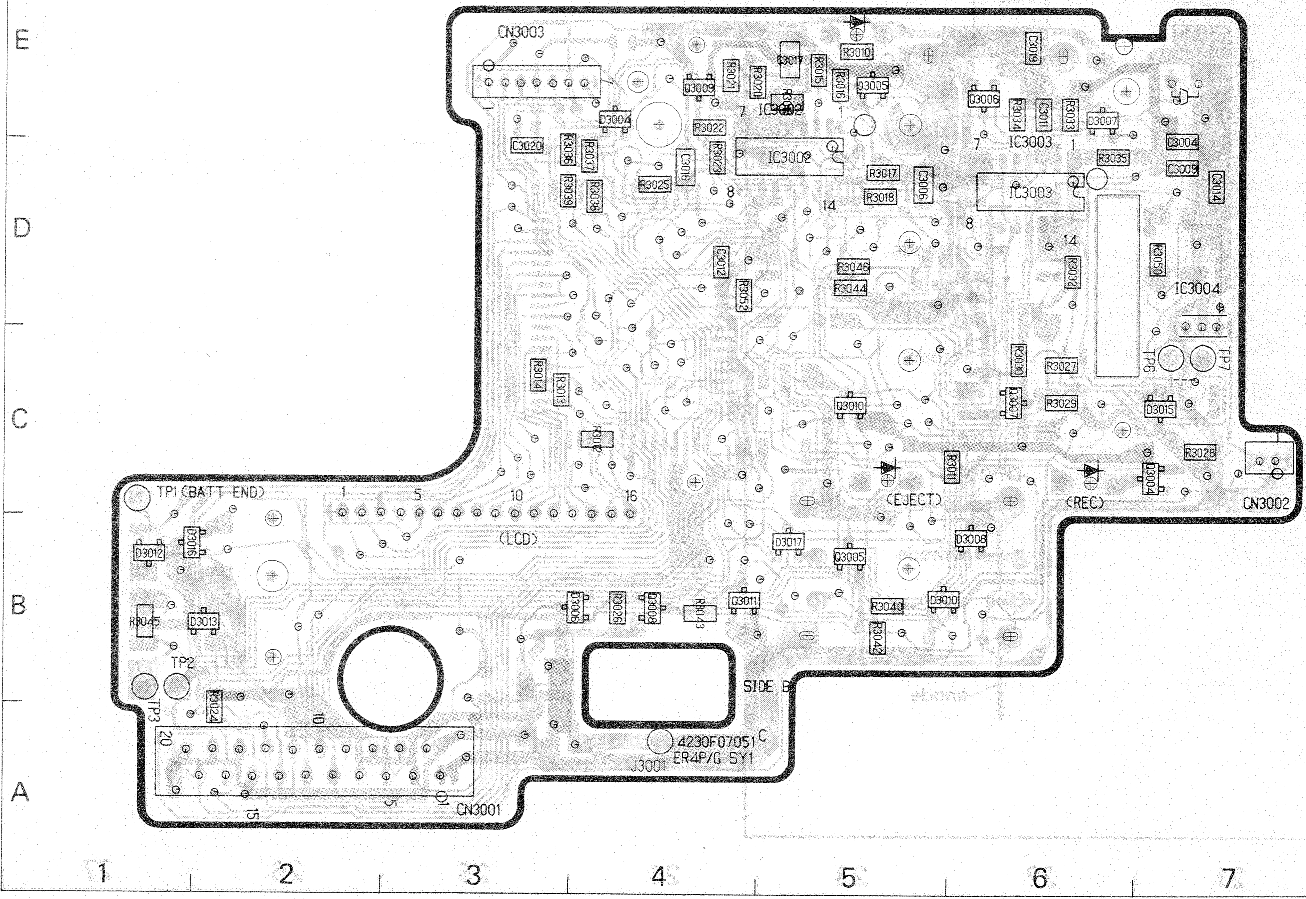
19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34

SY-1 BOARD SIDE A

SY-1 BO

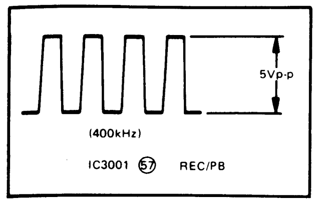

K
J
I
H
G
F
CN3003
R3007
Q3002
R3002
POWER LED
R3008
C3001
(GND)
R3006
Q3001
R3005
(POWER)
R3003
Q3003
R3004
R3001
IC3001
R3047
S3002
(STOP)
S3001
(PLAY)
C3005
C3010
C3007
D3008
D3011
S3007
(PAUSE /STILL)
S3006
IC4
(FF)
R3031
TP6
TP7
SP/EP
CN3002
S3010
D3009
S3005
C3008
(REW)
(SLOW)
X3001
RED
C3003
(LCD)
(EJECT LED)
(REC LED)
TP1
R3041
(RESET)
S3009
S3008
(MEMORY)
D3021
SVR3001
TP2
TP3
TEST
R3009
(EJECT)
(REC)
SIDE A
CN3001
J3001
4230F07051

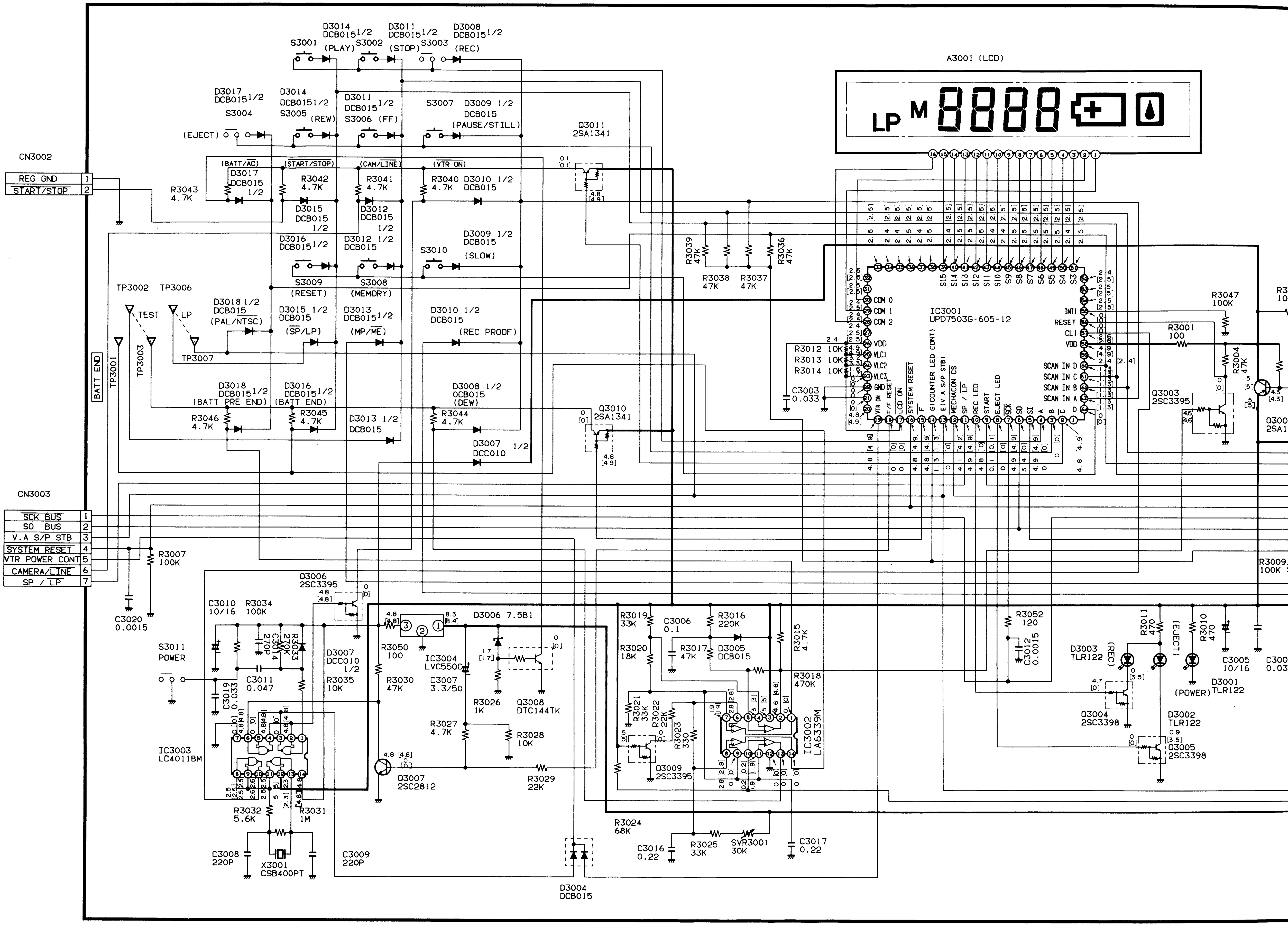
SY-1 BOARD SIDE B


E
D
C
B
A
1
2
3
4
5
6
7
8
CN3003
R3010
Q3017
R3021
R3020
R3015
R3016
D3005
C3019
Q3009
D3004
R3022
IC3002
Q3006
R3034
C3011
R3033
D3007
IC3003
C3020
R3036
R3037
C3016
R3023
R3025
R3039
R3038
R3035
C3004
C3009
C3014
R3017
R3018
C3006
C3012
R3052
R3046
R3044
R3032
R3050
IC3004
TP6
TP7
R3014
R3013
R3030
R3027
Q3010
Q3007
R3029
D3015
R3012
R3011
R3028
(EJECT)
(REC)
CN3002
TP1 (BATT END)
(LCD)
D3012
D3016
D3017
Q3005
D3006
R3045
D3013
R3026
R3043
Q3011
R3040
D3010
R3042
TP2
TP3
R3024
SIDE B
4230F07051
ER4P/G SY1
J3001
CN3001

SY-1 BOARD (SYSTEM CONTROL)

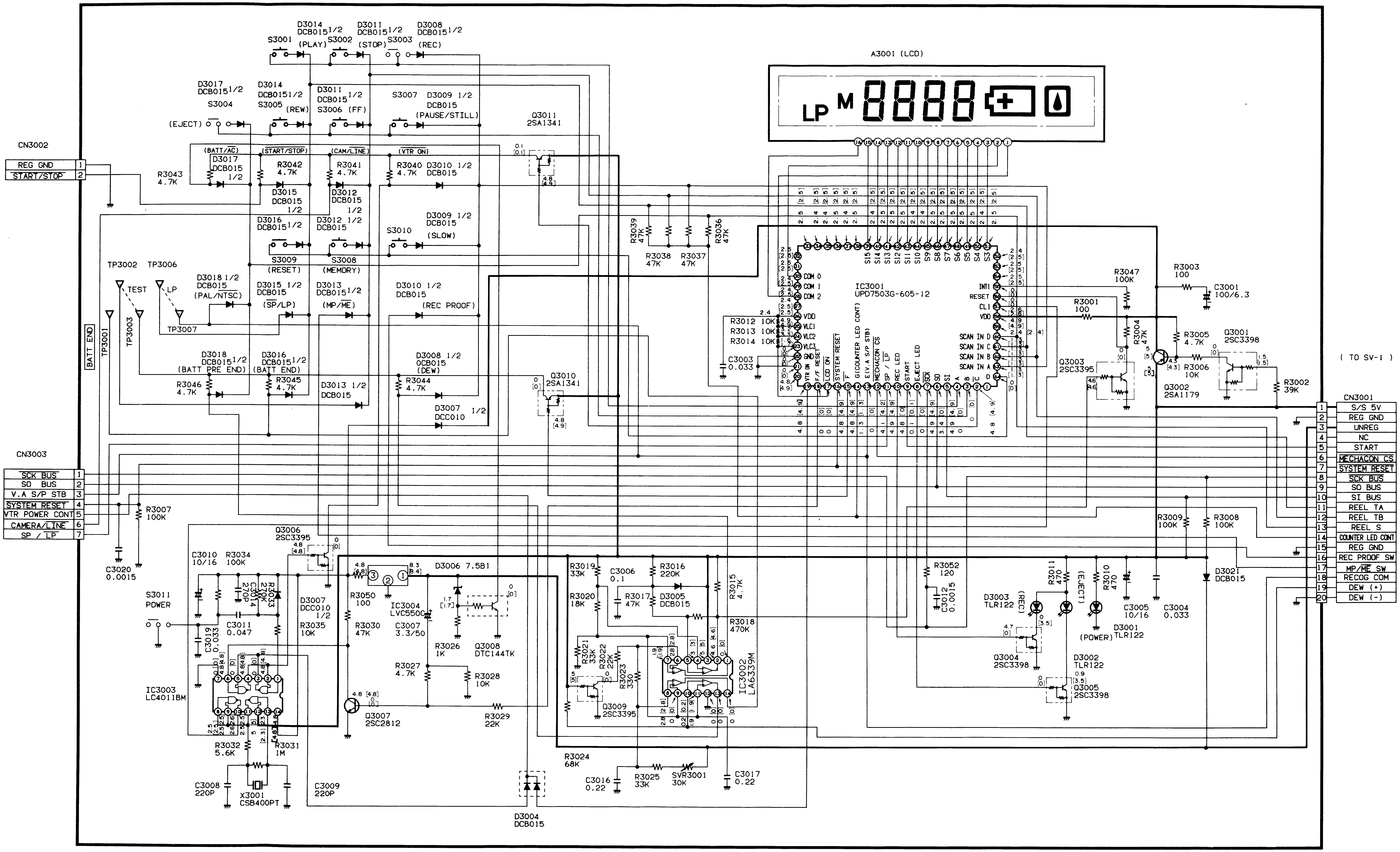
SY-1 CIRCUIT




A3001 (LCD)
LP M 8888
CN3002
REG GND
START/STOP
CN3003
SCK BUS
SO BUS
V.A S/P STB
SYSTEM RESET
VTR POWER CONT
CAMERA/LINE
SP / LP
S3001 (PLAY)
S3002 (STOP)
S3003 (REC)
S3004 (EJECT)
S3005 (REW)
S3006 (FF)
S3007 (PAUSE/STILL)
S3008 (MEMORY)
S3009 (RESET)
S3010 (SLOW)
S3011 POWER
D3014 DCB015 1/2
D3011 DCB015 1/2
D3008 DCB015 1/2
D3017 DCB015 1/2
D3009 1/2 DCB015
D3015 DCB015 1/2
D3012 DCB015 1/2
D3016 DCB015 1/2
D3018 1/2 DCB015 (PAL/NTSC)
D3015 1/2 DCB015 (SP/LP)
D3013 DCB015 1/2 (MP/ME)
D3010 1/2 DCB015 (REC PROOF)
D3018 DCB015 1/2 (BATT PRE END)
D3016 DCB015 1/2 (BATT END)
D3008 1/2 DCB015 (DEW)
D3013 1/2 DCB015
D3007 DCC010 1/2
D3006 7.5B1
D3004 DCB015
D3005 DCB015
D3003 TLR122 (REC)
D3002 TLR122 (EJECT)
D3001 TLR122 (POWER)
(BATT/AC)
(START/STOP)
(CAM/LINE)
(VTR ON)
TP3001 BATT END
TP3002 TEST
TP3003
TP3006 LP
TP3007
Q3011 2SA1341
Q3010 2SA1341
Q3006 2SC3395
Q3007 2SC2812
Q3008 DTC144TK
Q3009 2SC3395
Q3003 2SC3395
Q3004 2SC3398
Q3005 2SC3398
IC3001 UPD7503G-605-12
IC3002 LA6339M
IC3003 LC4011BM
IC3004 LVC550C
X3001 CSB400PT
SVR3001 30K
COM 0
COM 1
COM 2
VDD
VLC1
VLC2
VLC3
GND
INT1
RESET
CL1
SCAN IN D
SCAN IN C
SCAN IN B
SCAN IN A
VTR ON
F/F RESET
LCD ON
SYSTEM RESET
F
G(COUNTER LED CONT)
E(V.A S/P STB)
MECHACON CS
SP / LP
REC LED
START
EJECT LED
SCK
SO
SI
A
B
C
D
S15 S14 S13 S12 S11 S10 S9 S8 S7 S6 S5 S4 S3
R3043 4.7K
R3042 4.7K
R3041 4.7K
R3040 4.7K
R3046 4.7K
R3045 4.7K
R3044 4.7K
R3039 47K
R3038 47K
R3037 47K
R3036 47K
R3047 100K
R3001 100
R3004 47K
R3012 10K
R3013 10K
R3014 10K
R3007 100K
R3034 100K
R3033
R3035 10K
R3050 100
R3030 47K
R3026 1K
R3027 4.7K
R3028 10K
R3029 22K
R3032 5.6K
R3031 1M
R3019 33K
R3020 18K
R3021 33K
R3022 22K
R3023 330
R3016 220K
R3017 47K
R3015 4.7K
R3018 470K
R3024 68K
R3025 33K
R3052 120
R3011 470
R3010 470
R3009 100K
C3003 0.033
C3020 0.0015
C3010 10/16
C3014 270P
C3019 0.033
C3011 0.047
C3007 3.3/50
C3006 0.1
C3012 0.0015
C3005 10/16
C3016 0.22
C3017 0.22
C3008 220P
C3009 220P

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

SY-1 CIRCUIT

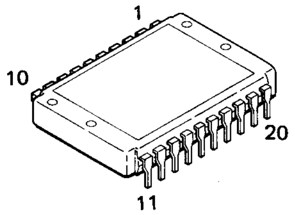

A3001 (LCD)
LP M 8888
IC3001
UPD7503G-605-12
IC3002
LA6339M
IC3003
LC4011BM
IC3004
LVC550C
CN3001
(TO SV-1)
1 S/S 5V
2 REG GND
3 UNREG
4 NC
5 START
6 MECHACON CS
7 SYSTEM RESET
8 SCK BUS
9 SO BUS
10 SI BUS
11 REEL TA
12 REEL TB
13 REEL S
14 COUNTER LED CONT
15 REG GND
16 REC PROOF SW
17 MP/ME SW
18 RECOG COM
19 DEW (+)
20 DEW (-)
CN3002
REG GND 1
START/STOP 2
CN3003
SCK BUS 1
SO BUS 2
V.A S/P STB 3
SYSTEM RESET 4
VTR POWER CONT 5
CAMERA/LINE 6
SP / LP 7
S3001 (PLAY)
S3002 (STOP)
S3003 (REC)
S3004 (EJECT)
S3005 (REW)
S3006 (FF)
S3007 (PAUSE/STILL)
S3008 (MEMORY)
S3009 (RESET)
S3010 (SLOW)
S3011 POWER
D3014 DCB015 1/2
D3011 DCB015 1/2
D3008 DCB015 1/2
D3017 DCB015 1/2
D3009 1/2 DCB015
D3015 DCB015 1/2
D3012 DCB015 1/2
D3010 1/2 DCB015
D3016 DCB015 1/2
D3013 DCB015 1/2
D3018 1/2 (PAL/NTSC)
(SP/LP)
(MP/ME)
(REC PROOF)
D3018 DCB015 1/2 (BATT PRE END)
D3016 DCB015 1/2 (BATT END)
D3008 1/2 DCB015 (DEW)
D3007 DCC010 1/2
(BATT/AC)
(START/STOP)
(CAM/LINE)
(VTR ON)
TP3002 TEST
TP3006 LP
TP3007
TP3001
TP3003
BATT END
Q3011 2SA1341
Q3010 2SA1341
Q3006 2SC3395
Q3007 2SC2812
Q3008 DTC144TK
Q3009 2SC3395
Q3001 2SC3398
Q3002 2SA1179
Q3003 2SC3395
Q3004 2SC3398
Q3005 2SC3398
D3006 7.5B1
D3005 DCB015
D3004 DCB015
D3021 DCB015
D3003 TLR122 (REC)
D3002 TLR122 (EJECT)
D3001 TLR122 (POWER)
X3001 CSB400PT
SVR3001 30K
R3043 4.7K
R3042 4.7K
R3041 4.7K
R3040 4.7K
R3046 4.7K
R3045 4.7K
R3044 4.7K
R3039 47K
R3038 47K
R3037 47K
R3036 47K
R3012 10K
R3013 10K
R3014 10K
R3047 100K
R3003 100
R3001 100
R3004 47K
R3005 4.7K
R3006 10K
R3002 39K
R3007 100K
R3009 100K
R3008 100K
R3034 100K
R3033 270K
R3050 100
R3035 10K
R3030 47K
R3026 1K
R3027 4.7K
R3028 10K
R3029 22K
R3032 5.6K
R3031 1M
R3019 33K
R3020 18K
R3021 33K
R3022 22K
R3023 330
R3016 220K
R3017 47K
R3015 4.7K
R3018 470K
R3024 68K
R3025 33K
R3052 120
R3011 470
R3010 470
C3001 100/6.3
C3003 0.033
C3020 0.0015
C3010 10/16
C3014 270P
C3011 0.047
C3019 0.033
C3007 3.3/50
C3008 220P
C3009 220P
C3006 0.1
C3016 0.22
C3017 0.22
C3012 0.0015
C3005 10/16
C3004 0.033
COM 0
COM 1
COM 2
VDD
VLC1
VLC2
VLC3
GND
INT1
RESET
CL1
SCAN IN D
SCAN IN C
SCAN IN B
SCAN IN A
S15 S14 S13 S12 S11 S10 S9 S8 S7 S6 S5 S4 S3
VTR ON
F/F RESET
LCD ON
SYSTEM RESET
F
G(COUNTER LED CONT)
E(V.A S/P STB)
MECHACON CS
SP / LP
REC LED
START
EJECT LED
SCK
SO
SI
A
B
C
D

*a : REC MODE
[b] : PB MODE

1 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

SEMICONDUCTORS

ICX-030AK



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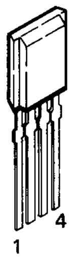

LA6393M
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LA6358M
LA6458M
CXL5001
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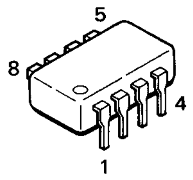

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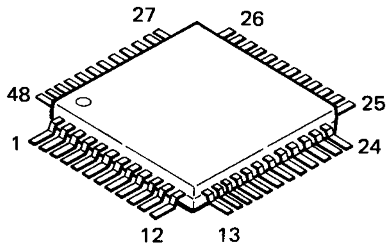
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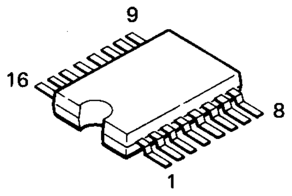
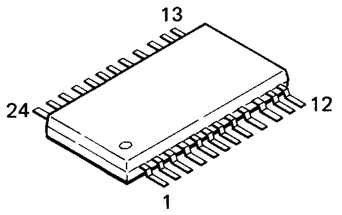
TC4526BF
MN4052BS
MN4053BF
TA8401F



AN2510S
CX20180
CX20114



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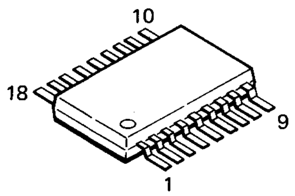

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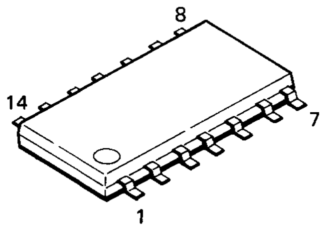
LC413BM
LC4069UBM
M51460FP



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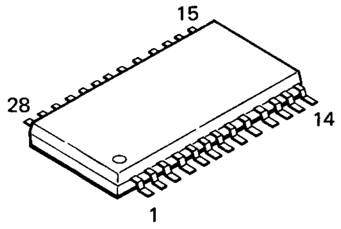

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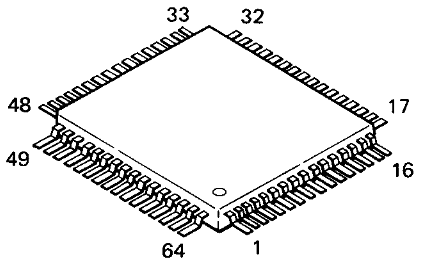
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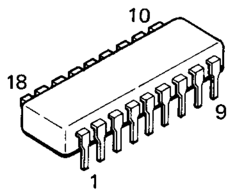

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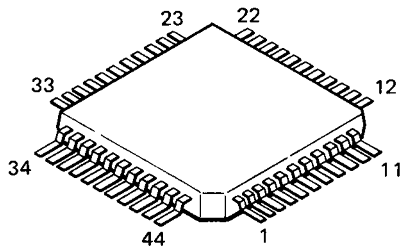
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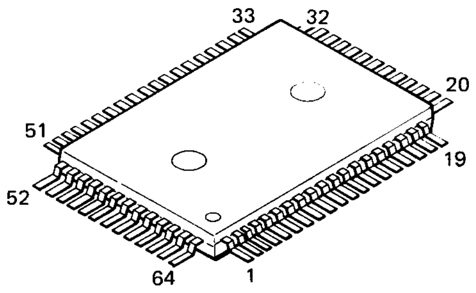
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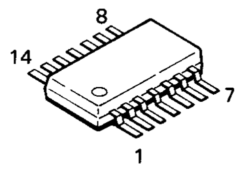

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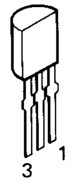

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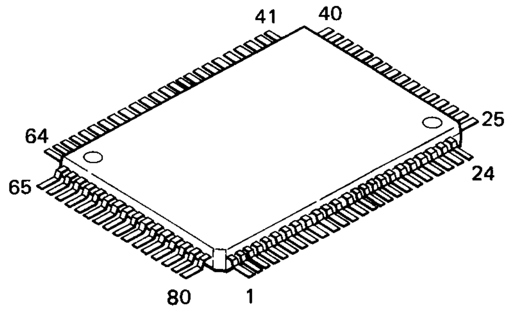
HD63705Z0F2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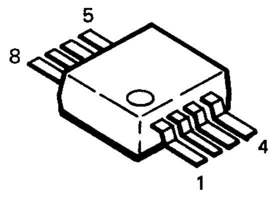
MB3763PF



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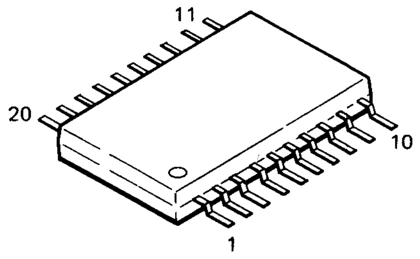
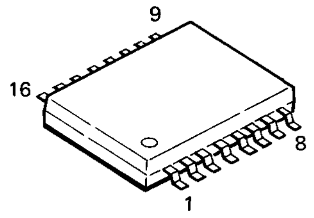
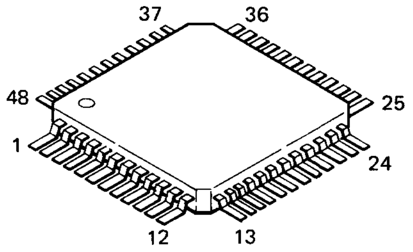


CX20115
CX22021



CX20034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2SC3396
2SC3397
2SD814
DTC114TK
2SC3395
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RN1406
RN2406
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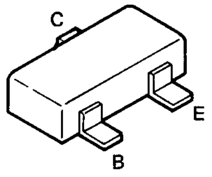

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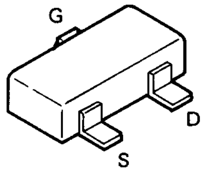

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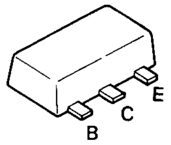

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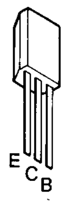

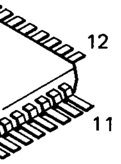

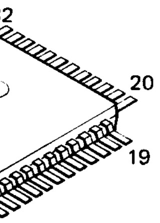

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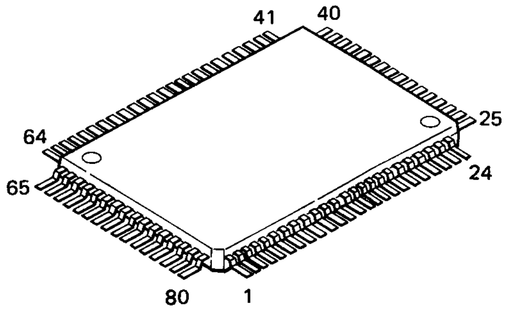
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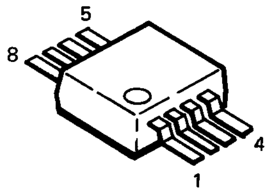
MB3763PF



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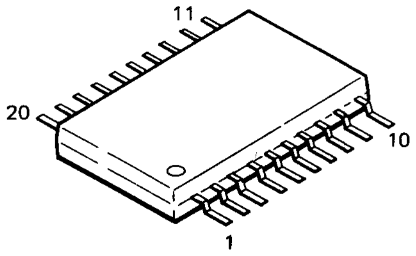

CX20115
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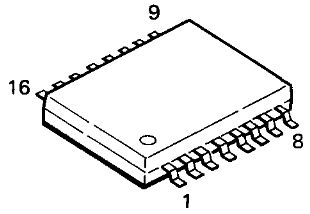

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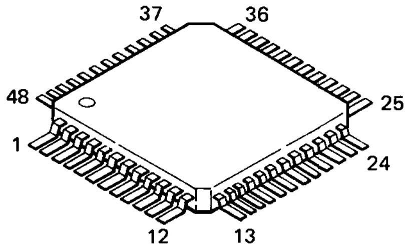
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DTC114TK
2SC3395
2SC2912
2SA1122
2SC2814
2SA1263
2SA2412
DTC144TK
2SC3398
RN1406
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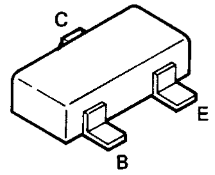

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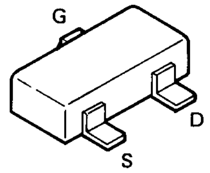

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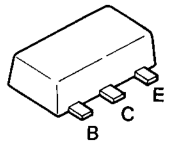

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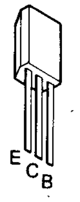

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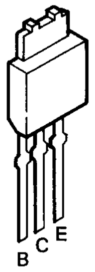

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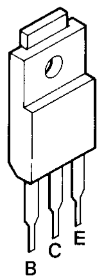

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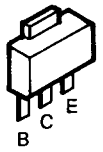

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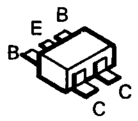

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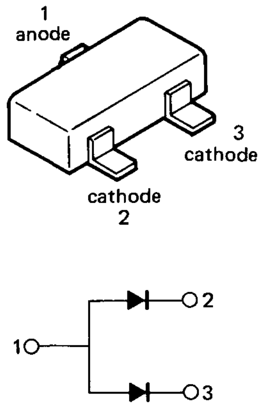
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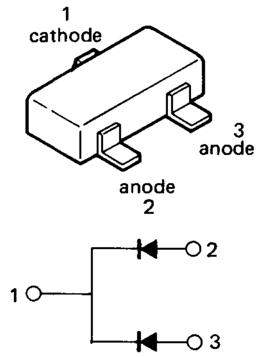
cathode
cathode
2
2
1
3

DCB015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anode
anode
2
2
1
3

1SS123
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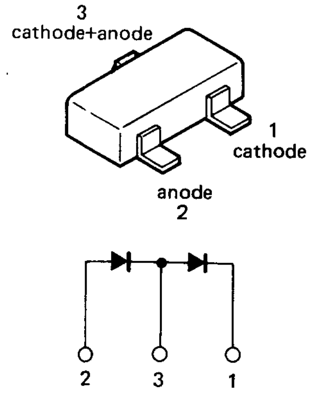
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cathode+anode
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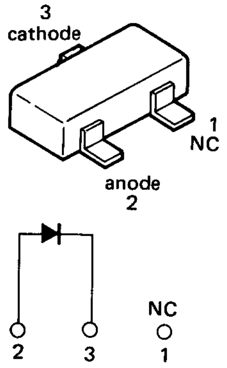
cathode
anode
2
2
3
1

DSA015
E10QS03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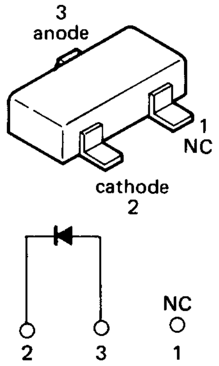
cathode
1
NC
anode
2
NC
2
3
1

RD2.2M
RD13M-B1
RD7.5M-B1
RD4.3M-B2
RD2.7M-B1
RD3.0M-B2
RD8.2M-B2
MA152K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anode
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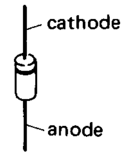
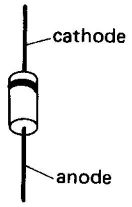
NC
cathode
2
NC
2
3
1

GZA6.2Y


cathode
anode

DFB05G


cathode
anode

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